

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

## APPLICATION FOR PERMIT TO DRILL, DEEPEN

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> 1b. TYPE OF WELL  OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <p style="text-align: center;"><b>ML-16532</b></p>
2. NAME OF OPERATOR <b>Newfield Production Company</b>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <p style="text-align: center;"><b>N/A</b></p>
3. ADDRESS AND TELEPHONE NUMBER: <b>Route #3 Box 3630, Myton, UT 84052</b> Phone: <b>(435) 646-3721</b>		7. UNIT AGREEMENT NAME <p style="text-align: center;"><b>N/A</b></p>
4. LOCATION OF WELL (FOOTAGE) At Surface <b>SE/SE     658' FSL 664' FEL     40,025' 402</b> At proposed Producing Zone <b>575386X     4430740Y     -110.116540</b>		8. FARM OR LEASE NAME <p style="text-align: center;"><b>N/A</b></p>
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>Approximately 21.4 miles southwest of Myton, UT</b>		9. WELL NO. <b>State #16-16-9-16</b>
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>658' f/lse line and NA' f/unit line</b>		10. FIELD AND POOL OR WILDCAT <p style="text-align: center;"><b>Monument Butte</b></p>
16. NO. OF ACRES IN LEASE <p style="text-align: center;"><b>640.00</b></p>		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>SE/SE</b> <b>Sec. 16, T9S, R16E</b>
17. NO. OF ACRES ASSIGNED TO THIS WELL <p style="text-align: center;"><b>40</b></p>		12. County <b>Duchesne</b>
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. <b>Approximately 1543'</b>		13. STATE <p style="text-align: center;"><b>UT</b></p>
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>5879' GL</b>		22. APPROX. DATE WORK WILL START* <b>1st Quarter 2008</b>

### 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24#	<del>200</del> 400'	155 sx +/- 10%
7 7/8	5 1/2	15.5#	TD	275 sx lead followed by 450 sx tail
				See Detail Below

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give date on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

\*The actual cement volumes will be calculated off of the open hole logs, plus 15% excess:

**SURFACE PIPE** - 155 sx Class G Cement +/- 10%, w/ 2% CaCl<sub>2</sub> & 1/4#/sk Cello-flake  
 Weight: 15.8 PPG     YIELD: 1.17 Cu Ft/sk     H<sub>2</sub>O Req: 5 gal/sk

**LONG STRING** - Lead: Premium Lite II Cement + 3lbs/sk BA-90 + 3% KCl + .25 lbs/sk Cello Flake + 2 lbs/sk Kol Seal + 10% Bentonite + .5% Sodium Metasilicate  
 Weight: 11.0 PPG     YIELD: 3.43 Cu Ft/sk     H<sub>2</sub>O Req: 21.04 gal/sk

Tail: 50-50 Poz-Class G Cement + 3% KCl + .25 lbs/sk Cello Flake + 2% Bentonite + .3% Sodium Metasilicate  
 Weight: 14.2 PPG     YIELD: 1.59 Cu Ft/sk     H<sub>2</sub>O Req: 7.88 gal/sk

24. Name & Signature: Mandie Crozier Title: Regulatory Specialist Date: 11/19/2007  
**Mandie Crozier**

(This space for State use only)

API Number Assigned:

43013-33854

APPROVAL:

Approved by the  
Utah Division of  
Oil, Gas and Mining

\*See Instructions On Reverse Side

Date: 01-24-08

By: [Signature]

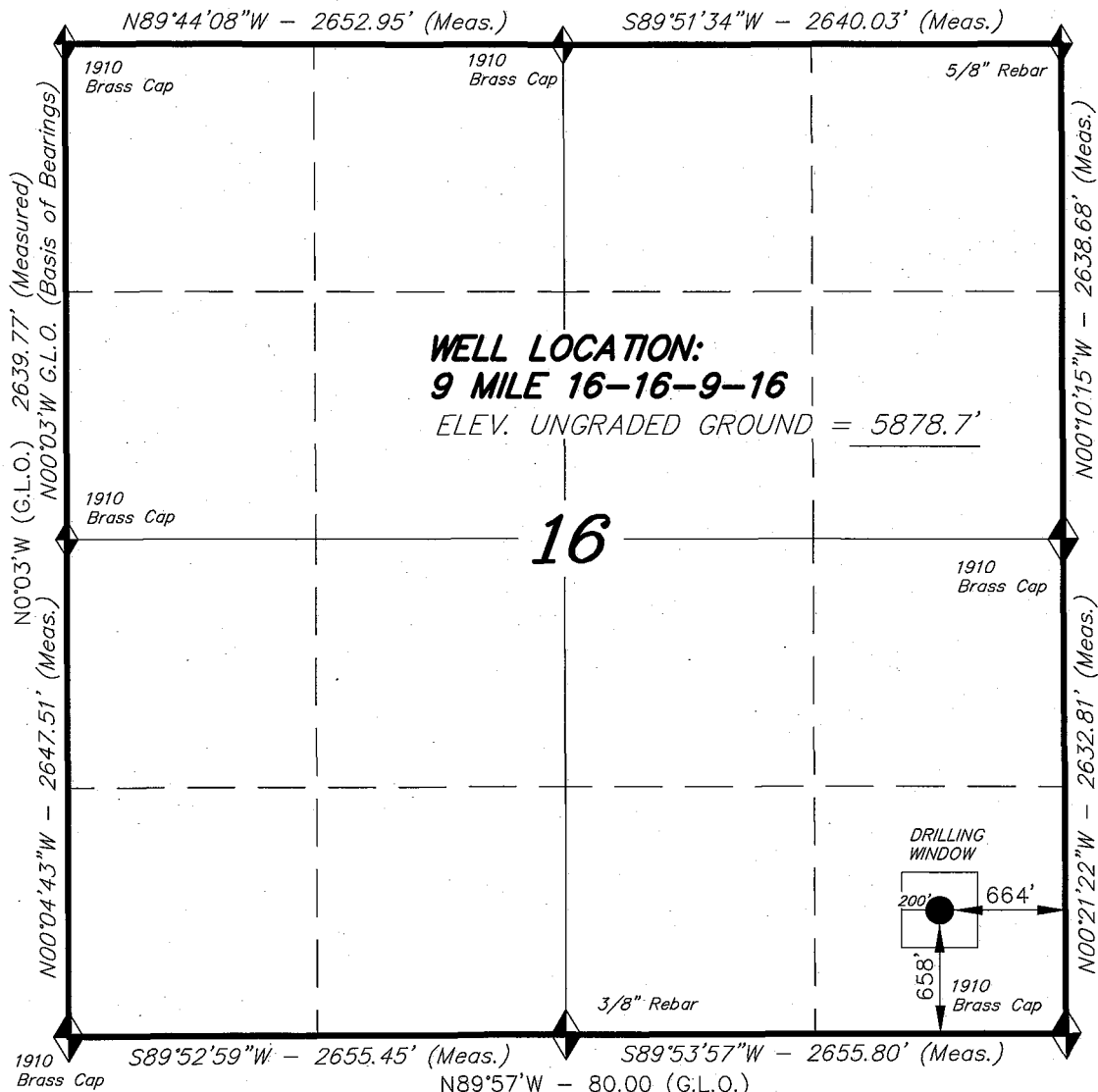
**RECEIVED**

**NOV 29 2007**

**DIV. OF OIL, GAS & MINING**

# T9S, R16E, S.L.B.&M.

N89°50'W - 80.24 (G.L.O.)



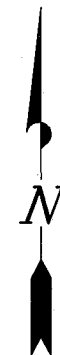
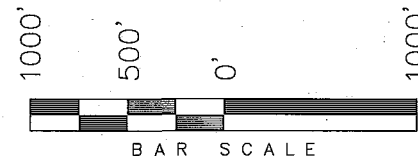
◆ = SECTION CORNERS LOCATED

BASIS OF ELEV;  
U.S.G.S. 7-1/2 min QUAD (MYTON SE)

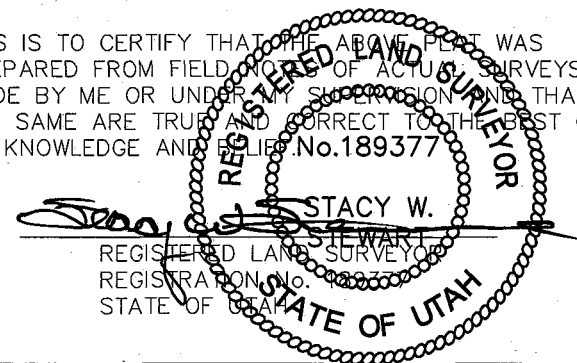
9 MILE 16-16-9-16  
(Surface Location) NAD 83  
LATITUDE = 40° 01' 31.52"  
LONGITUDE = 110° 07' 01.87"

## NEWFIELD PRODUCTION COMPANY

WELL LOCATION, 9 MILE 16-16-9-16,  
LOCATED AS SHOWN IN THE SE 1/4 SE  
1/4 OF SECTION 16, T9S, R16E,  
S.L.B.&M. DUCHESNE COUNTY, UTAH.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF. No. 189377



## TRI STATE LAND SURVEYING & CONSULTING

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 10-08-07	SURVEYED BY: C.M.
DATE DRAWN: 11-02-07	DRAWN BY: F.T.M.
REVISED:	SCALE: 1" = 1000'

NEWFIELD PRODUCTION COMPANY  
STATE #16-16-9-16  
SE/SE SECTION 16, T9S, R16E  
DUCHESNE COUNTY, UTAH

TEN POINT DRILLING PROGRAM

1. **GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

2. **ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Uinta	0 – 1700'
Green River	1700'
Wasatch	6500'

3. **ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation 1700' – 6500' – Oil

4. **PROPOSED CASING PROGRAM:**

Surface Casing: 8-5/8" J-55 24# w/ST&C collars; set at <sup>400'</sup>~~290'~~ (New)  
Production Casing: 5-1/2" J-55, 15.5# w/LT&C collars; set at TD (New or used, inspected).

5. **MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

The operator's minimum specifications for pressure control equipment are as follows:

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be check daily.

Refer to **Exhibit C** for a diagram of BOP equipment that will be used on this well.

6. **TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

A fresh water/polymer system will be utilized to drill the well. If necessary, to control formation fluids, the system will be weighted with the addition of bentonite gel, and if conditions warrant, barite. This fresh water system typically will contain Total Dissolved Solids (TDS) of less than 3000 PPM. Neither potassium chloride nor chromates will be utilized in the fluid system. The anticipated mud weight is 8.4 ppg and weighted as necessary for gas control.

**AIR DRILLING**

In the event that the proposed location is to be "Air Drilled", Newfield requests a variance to regulations requiring a straight run blooie line. Newfield proposes that the flowline will contain two (2) 90-degree turns. Newfield also requests a variance to regulations requiring an automatic igniter or continuous pilot light on the blooie line. Newfield requests authorization to ignite as needed, and the flowline at 80'.

Newfield Production Company requests that the spark arrest, exhaust, or water cooled exhaust be waived under the Special Drilling Operations of Onshore Order #2.

**MUD PROGRAM**

Surface – 3200'  
3200' – TD'

**MUD TYPE**

fresh water system  
fresh water system

From surface to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCL substitute additive. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite. No chromate additives will be used in the mud system.

7. **AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

8. **TESTING, LOGGING AND CORING PROGRAMS:**

The logging program will consist of a Dual Induction, Gamma Ray and Caliper log from TD to base of surface casing @ <sup>400'</sup>~~290'~~ +/-, and a Compensated Neutron-Formation Density Log from TD to 3500' +/- . A cement bond log will be run from PBTD to cement top. No drill stem testing or coring is planned for this well.

9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

The anticipated maximum bottom hole pressure is 1800 psi. It is not anticipated that abnormal temperatures will be encountered; or that any other abnormal hazards such as H2S will be encountered in this area.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

It is anticipated that the drilling operations will commence the first quarter of 2008, and take approximately seven (7) days from spud to rig release.



NEWFIELD PRODUCTION COMPANY  
STATE #16-16-9-16  
SE/SE SECTION 16, T9S, R16E  
DUCHESNE COUNTY, UTAH

THIRTEEN POINT SURFACE PROGRAM

1. EXISTING ROADS

See attached **Topographic Map "A"**

To reach Newfield Production Company well location site State #16-16-9-16 located in the SE¼ SE¼ Section 16, T9S, R16E, S.L.B. & M., Duchesne County, Utah:

Proceed in a southwesterly direction out of Myton, Utah along Highway 40 approximately 1.4 miles to the junction of this highway and Utah State Highway 53; proceed southerly along Utah State Highway 53 approximately 1.7 miles to its junction with an existing road to the southwest; proceed southwesterly approximately 9.7 miles to its junction with an existing road to the southeast; proceed southeasterly approximately 0.3 miles to its junction with an existing road to the northeast; proceed northeasterly approximately 5.1 miles to its junction with an existing road to the southwest; proceed southwesterly approximately 2.9 miles to its junction with an existing road to the south; proceed in a southerly direction approximately 0.2 miles to its junction with the beginning of the proposed access road to the northeast; proceed northeasterly along the proposed access road approximately 220'; turn and proceed in a southeasterly direction along the proposed access road approximately 750' to the proposed well location.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 216 exists to the South, thereafter the roads are constructed with existing materials and gravel. The highways are maintained by Utah State road crews. All other roads are maintained by County crews.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal.

2. PLANNED ACCESS ROAD

Approximately 750' of access road is proposed. See attached **Topographic Map "B"**.

The proposed access road will be an 18' crown road (9' either side of the centerline) with drainage ditches along either side of the proposed road whether it is deemed necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area. The maximum grade will be less than 8%.

There will be no culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

3. **LOCATION OF EXISTING WELLS**

Refer to **EXHIBIT B**.

4. **LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain at minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to State specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted Desert Tan. All facilities will be painted within six months of installation.

5. **LOCATION AND TYPE OF WATER SUPPLY**

Fresh water purchased from the Johnson Water District will be used for drilling. A temporary poly pipeline may be used for water transportation from our existing supply line from Johnson Water District, or trucked from Newfield Production Company's injection facilities – **EXHIBIT A**.

There will be no water well drilled at this site.

6. **SOURCE OF CONSTRUCTION MATERIALS**

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

A small reserve pit (90' x 40' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the processed drill cutting (wet sand, shale & rock) removed from the wellbore. Any drilling fluids, which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed. All drilling fluids will be fresh water based, typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be required in the reserve pit. However, if upon constructing the pit there is insufficient fine clay and silt present, a liner will be used for the purpose of reducing water loss through percolation.

Newfield requests approval that a flare pit not be constructed or utilized on this location.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

8. **ANCILLARY FACILITIES:**

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. **WELL SITE LAYOUT:**

See attached Location Layout Sheet.

**Fencing Requirements**

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

10. **PLANS FOR RESTORATION OF SURFACE:**

a) **Producing Location**

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

b) **Dry Hole Abandoned Location**

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

11. **SURFACE OWNERSHIP:** State of Utah

12. **OTHER ADDITIONAL INFORMATION:**

- a) Newfield Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Newfield is to immediately stop work that might further disturb such materials and contact the Authorized Officer.
- b) Newfield Production will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. On State administered land it is required that a Pesticide Use Proposal shall be submitted and given approval prior to the application of herbicides or other possible hazardous chemicals.
- c) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

The Archaeological Cultural Resource Survey Report is attached. **Refer to Exhibit "D".**

**Additional Surface Stipulations**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

**Hazardous Material Declaration**

Newfield Production Company guarantees that during the drilling and completion of the State 16-16-9-16, Newfield will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Newfield also guarantees that during the drilling and completion of the State 16-16-9-16 Newfield will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Newfield Production Company or a contractor employed by Newfield Production shall contact the State office at (801) 722-3417, 48 hours prior to construction activities.

The State office shall be notified upon site completion prior to moving on the drilling rig.

13. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:**

Representative

Name: Dave Allred  
Address: Newfield Production Company  
Route 3, Box 3630  
Myton, UT 84052  
Telephone: (435) 646-3721

Certification

Please be advised that Newfield Production Company is considered to be the operator of well #16-16-9-16, SE/SE Section 16, T9S, R16E, LEASE #ML-16532, Duchesne County, Utah and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4471291.

I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

11/19/07  
Date

  
Mandie Crozier  
Regulatory Specialist  
Newfield Production Company

CULTURAL RESOURCE INVENTORY OF  
NEWFIELD EXPLORATION'S TEN 40 ACRE PARCELS IN  
TOWNSHIP 9S, RANGE 16E, SECTION 16  
DUCHESNE COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

State of Utah  
School & Institutional Trust Lands Administration  
Salt Lake City

Prepared Under Contract With:

Newfield Exploration Company  
Rt. 3 Box 3630  
Myton, UT 84052

Submitted By:

Keith R. Montgomery  
Montgomery Archaeological Consultants, Inc.  
P.O. Box 219  
Moab, Utah 84532

MOAC Report No. 07-348

October 31, 2007

United States Department of Interior (FLPMA)  
Permit No. 07-UT-60122

State of Utah Public Lands Policy  
Archaeological Survey Permit No. 117

State of Utah Antiquities Project (Survey)  
Permit No. U-07-MQ-1297s

**RECEIVED**

**NOV 29 2007**

**DIV. OF OIL, GAS & MINING**

## ABSTRACT

In October 2007, a cultural resource inventory was conducted by Montgomery Archaeological Consultants, Inc. (MOAC) of Newfield Exploration's ten 40 acre parcels near Castle Peak Draw. Newfield Exploration proposes to develop gas wells with associated access and pipelines in these areas. The project area is located southwest of Roosevelt, Duchesne County, Utah. The legal description of the ten 40 acre parcels is as follows: SE/SE, NE/NE, NE/NW, NW/NW, SW/NW, NE/NW, SE/NW, NE/SW, NW/SW and SW/SW of Section 16, Township 9 South, Range 16 East. A total of 400 acres was inventoried on State of Utah School and Institutional Trust Lands Administration (SITLA) property.

The cultural resource inventory resulted in the documentation of two new archaeological sites (42Dc2444 and 42Dc2445). Site 42Dc2444 is a historic trash scatter containing a restricted class and quantity of cultural materials and no features. Therefore, the site is recommended not eligible for the NRHP since it fails to contribute to the prehistory of the area (Criterion D). In addition, the site is not associated with significant event(s) or person(s) (Criteria A and B), nor does it represent the work of a master (Criterion C). Site 42Dc2445 is a prehistoric rockshelter that may represent a single prehistoric occupation and contains cultural fill that could provide <sup>14</sup>C and subsistence-related data. The site is recommended eligible to the NRHP under Criterion D because it is likely to address such research domains as chronology, subsistence strategies, and land use patterns.

The inventory of Newfield Exploration's ten 40-acre parcels in Township 9S, Range 16E, Section 16 resulted in the documentation of two new archaeological sites (42Dc2444 and 42Dc2445). Site 42Dc2445 is recommended eligible to the NRHP and should be avoided by any ground disturbing activities. Based on the adherence to this recommendation, a determination of "no historic properties affected" pursuant to Section 106, CFR 800 is proposed for this project.

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## INTRODUCTION

In October 2007, a cultural resource inventory was conducted by Montgomery Archaeological Consultants, Inc. (MOAC) of Newfield Exploration's ten 40 acre parcels near Castle Peak Draw. Newfield Exploration proposes to develop gas wells with associated access and pipelines in these areas. The project area is located southwest of Roosevelt, Duchesne County, Utah. The legal description of the project area is Township 9 South, Range 16 East, Section 16. Land status is State of Utah School and Institutional Trust Lands Administration (SITLA) property.

The objective of the inventory was to locate, document and evaluate any cultural resources within the project area. This project was carried out in compliance with Federal and State legislation including the Antiquities Act of 1906, the National Historic Preservation Act (NHPA) of 1966, National Environmental and Historic Preservation Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979 and the American Indian Religious Freedom Act of 1978.

The fieldwork was conducted between October 10 and 18, 2007 under the direction of Chris Roberts (Field Supervisor) and assisted by Joe Griffin, Adam McManus, and Amy Ackman under the auspices of U.S.D.I. (FLPMA) Permit No. 07-UT-60122, State of Utah Public Lands Policy Archaeological Survey Permit No. 117, and State of Utah Antiquities Project (Survey) No. U-07-MQ-1297s issued to MOAC, Moab, Utah.

A file search for previous projects and documented cultural resources was conducted by Keith Montgomery at the BLM Vernal Field Office on October 10, 2007. This consultation indicated that several inventories have been completed near the current project area, although none of the previously recorded sites occur within the present project area.

In 1986, the BLM surveyed a series of watershed reservoirs along Castle Peak Draw, resulting in no cultural resources (Phillips 1986).

In 1990, the BLM inventoried numerous areas west of the current project area for a number of proposed erosion control structures along Castle Draw, resulting in no cultural resources (Phillips 1990). In 1993, Archeological-Environmental Research Corporation (AERC) performed a cultural resource evaluation of nine well locations near Castle Peak Draw (Hauck 1993), no cultural resources were documented within the current project area. In 1996, AERC completed a cultural resource inventory of 11 wells for Equitable Resources Energy Company, resulting in the documentation of no cultural resources within the current project area (Hauck 1996a). Also in 1996, AERC performed an inventory of Equitable Resources Energy Company's eight well locations, no archaeological sites were documented within the current project boundary (Hauck 1996b). In 1998, AERC completed a cultural resource evaluation of various large tracts in the Wells Draw to Pariette Bench locality in Duchesne and Uintah Counties, no cultural resources were located within the current project area (Hauck 1998).

In 2005, MOAC surveyed 1055.3 acres just west of the current project area resulting in the location of seven sites (Simon 2005). During the same year MOAC surveyed two 40 acre parcels in Township 9S, Range 16E, Section 15 resulting in two ineligible historic sites (Mueller and Montgomery 2005). In 2006, MOAC inventoried a 40 acre parcel in Township 9S, Range 16E, Section 15 documenting a historic camp and lithic scatter site (Stavish 2006). In summary, although several archaeological sites have been documented in the project vicinity, none of them occur within the immediate project area.

## DESCRIPTION OF PROJECT AREA

The project area is located near Wells Draw, southwest of Roosevelt, Duchesne County, Utah (Figure 1). The legal description of the ten 40 acre parcels is as follows: SE/SE, NE/NE, NE/NW, NW/NW, SW/NW, NE/NW, SE/NW, NE/SW, NW/SW and SW/SW of Section 16, Township 9 South, Range 16 East (Figure 1). A total of 400 acres was inventoried on State of Utah Trust Lands Administration property.

### Environmental Setting

The project area lies within the Uintah Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The area is characterized by steep-sided narrow ridges and benches dissected by intermittent drainages. Outcrops of the Uinta formation are characterized by a dense dendritic drainage pattern and topographic relief. This Eocene-age formation occurs as fluvial deposited interbedded sandstone and mudstone and is well-known for its fossil vertebrate turtles, crocodilians, fish, and mammals. Specifically, the inventory area is situated in canyons and along ridges, which flank both sides of Wells Draw. The nearest permanent water source is Nine Mile Creek. Elevation of the project area ranges from 5750 to 6000 ft asl. The vegetation is dominated by a juniper-sagebrush vegetation community along with shadscale, greasewood, prickly pear cactus, and various grasses. Disturbances include roads, grazing, and oil and gas development.

### Cultural Overview

The cultural-chronological sequence represented in the area includes the Paleoindian, Archaic, Fremont, Protohistoric, and Euro-American stages. The earliest inhabitants of the region are representative of the Paleoindian stage (ca. 12,000-8000 B.P.). This stage is characterized by the adaptation to terminal Pleistocene environments and by the exploitation of big game fauna. The presence of Paleoindian hunters in the Uinta Basin region is implied by the discovery of Clovis and Folsom fluted points (ca. 12,000 B.P. - 10,000 B.P.), as well as the more recent Plano Complex lanceolate points (ca. 10,000 B.P. - 7000 B.P.). Projectile points from the Agate Basin Complex, Hell Gap Complex, and Alberta/Cody Complex have been found throughout the Uinta Basin, primarily as isolated finds (Spangler 1995). Near the project area, several Paleoindian projectile points have been documented (Goshen, Alberta, and Midland styles) along Wells Draw (Hauck 1998).

The Archaic stage (ca. 8000 B.P.-1500 B.P.) is characterized by the dependence on a foraging subsistence, with peoples seasonally exploiting a wide spectrum of plant and animal species in different ecozones. The shift to an Archaic lifeway was marked by the appearance of new projectile point types, and the development of the atlatl, perhaps in response to a need to pursue smaller and faster game (Holmer 1986). In the Uinta Basin, evidence of Early Archaic presence is relatively sparse compared to the subsequent Middle and Late Archaic periods. Early Archaic (ca. 6000-3000 B.C.) sites in the Basin include sand dune sites and rockshelters primarily clustered in the lower White River drainage (Spangler 1995:373). Early Archaic projectile points recovered from Uinta Basin contexts include Pinto Series, Humboldt, Elko Series, Northern Side-notched, Hawken Side-notched, Sudden Side-notched, and Rocker Base Side-notched points. Excavated sites in the area with Early Archaic components include Deluge Shelter in Dinosaur National Monument, and open campsites along the Green River and on the Diamond Mountain Plateau (Spangler 1995:374).

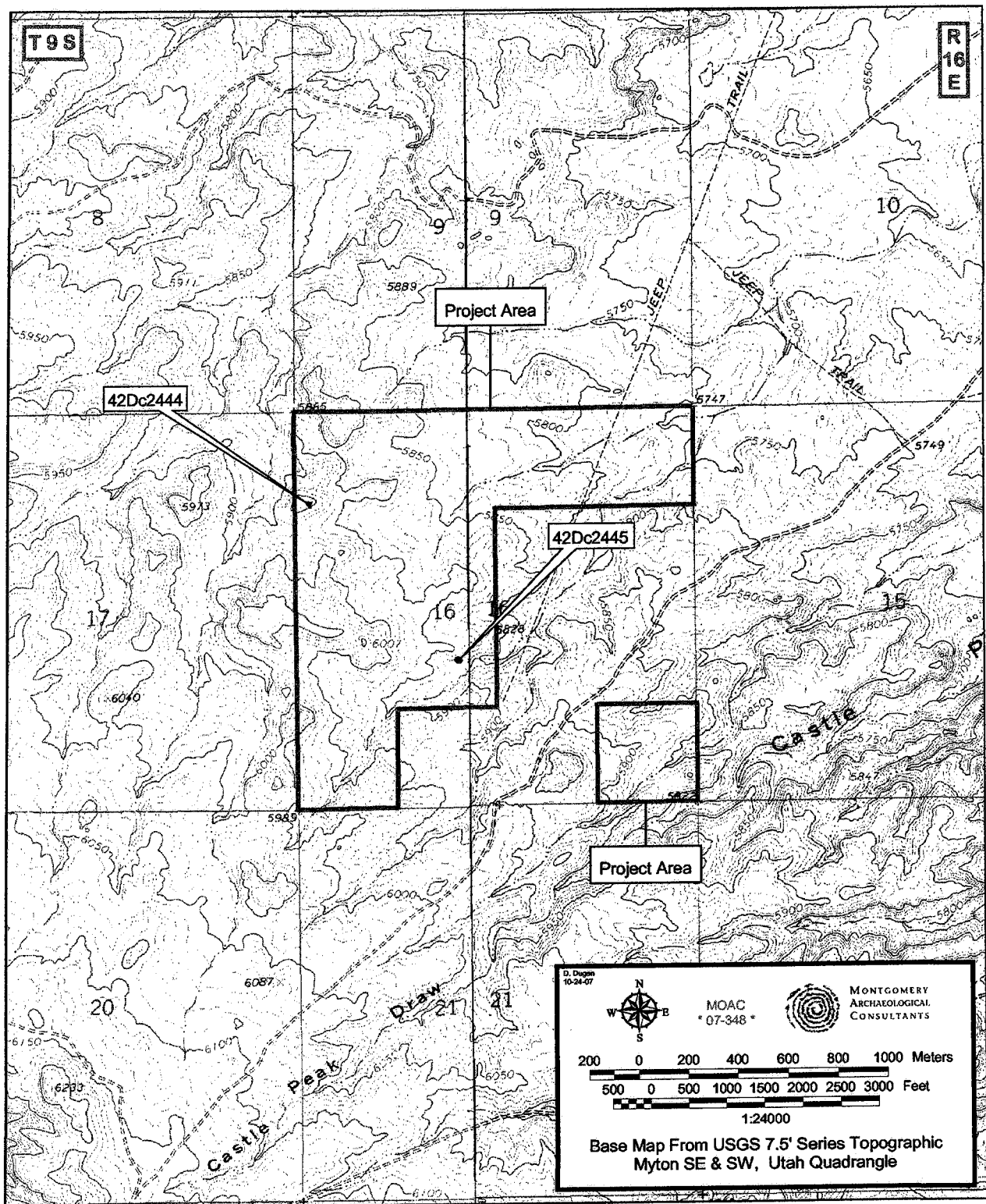


Figure 1. Inventory Area of Newfield Exploration's Ten 40 Acre Parcels in T9S, R16E, Section 16, Duchesne County, Utah.

The Middle Archaic era (ca. 3000-500 B.C.) is characterized by improved climatic conditions and an increase in human population on the northern Colorado Plateau. Several stratified Middle Archaic sites have been excavated and dozens of sites have been documented in the Uinta Basin. Middle Archaic sites in the area reflect cultural influences from the Plains, although a Great Basin and/or northern Colorado Plateau influence is represented in the continuation of the Elko Series projectile points. Subsistence data from Middle Archaic components indicate gathering and processing of plants as well as faunal exploitation (e.g., mule deer, antelope, bighorn sheep, cottontail rabbit, muskrat, prairie dog, beaver, and birds). The Late Archaic period (ca. 500 B.C.-A.D. 550) in the Uinta Basin is distinguished by the continuation of Elko Series projectile points with the addition of semi-subterranean residential structures at base camps. By about A.D. 100, maize horticulture and Rose Springs arrow points had been added to the Archaic lifeway. In the Uinta Basin, the earliest evidence of Late Archaic architecture occurs at the Cockleburr Wash Site (42Un1476) where a temporary structure, probably a brush shelter, yielded a date of 316 B.C. (Tucker 1986). The structure was probably associated with seasonal procurement of wild floral resources gathered along Cliff Creek.

The Formative stage (A.D. 500-1300) is recognized in the area as the Uinta Fremont as first defined by Marwitt (1970). This stage is characterized by a reliance upon domesticated corn and squash, increasing sedentism, and in its later periods, substantial habitation structures, pottery, and bow and arrow weapon technology. Based on the evidence from Caldwell Village, Boundary Village, Deluge Shelter, Mantles Cave, and others, the temporal range of the Uinta Fremont appears to be from A.D. 650 to 950. This variant is characterized by shallow, saucer-shaped pithouse structures with randomly placed postholes and off-center firepits, some of which were adobe-rimmed. Traits considered unique or predominate to the Uinta Basin include calcite-tempered pottery, two-handled wide-mouth vessels, Utah type metates, the use of gilsonite for pottery repair, settlement on tops of buttes, and large-shouldered bifaces (Shields 1970).

Archaeological evidence suggests that Numic peoples appeared in east-central Utah at approximately A.D. 1100 or shortly before the disappearance of Formative-stage peoples (Reed 1994). The archaeological remains of Numic-speaking Utes consist primarily of lithic scatters with low quantities of brownware ceramics, rock art, and occasional wickiups. Rock art has been defined by Cole (1990) as either Early Historic Ute Indian Style (A.D. 1600 to 1830) or Late Historic Ute Indian Style (A.D. 1830 to 1880). The brownware ceramics appear to be the most reliable indicator of cultural affiliation, as Desert Side-notched and Cottonwood Triangular points were manufactured by other cultural groups beside the Ute (Horn, Reed, and Chandler 1994:130). The Ute appear to have been hunters and gatherers who exploited various fauna and flora resources. According to macrobotanical and faunal data from dated components, deer, elk, pronghorn, bison, and small game were acquired (Reed 1994:191). Plant materials thought to have been exploited for food include goosefoot, grass seeds, pinyon nuts, juniper berries, squawbush berries and leaves, hackberry seeds, and possibly saltbush seeds, knotweed, chokecherry, and chickweed (Reed 1994:191).

The historic settlement of Duchesne County is somewhat unique in the state of Utah in that it was not settled by Mormon pioneers, as early scouting parties had deemed the area unfit for settlers. Thus, the earliest permanent European settlements and associated developments within the Uinta Basin were established by the U.S. Army during the 1880s. The two most significant settlements built during this time were Fort Thornburg (in Uintah County) and Fort Duchesne, and soldiers were quickly put to work in the construction of freight roads that connected these forts to established settlements in Wyoming, and also to the towns and markets of northern Utah. During the 1880s, the area was gradually opened up for settlement with the granting of 160 acre parcels

under the Homestead Act. Myton, located to the northeast of the project area, started as a trading post on the Uintah Indian Reservation sometime in the mid-1880s. The trading post served a small segment of the Indian population until 1886, when the army constructed a bridge over the Duchesne River (Barton 1998:154). Myton was originally known as Bridge, and quickly changed from a small bustling way-station and Indian trading post to a town of tents and a few wooden buildings prior to the opening of the Uintah Indian Reservation around 1905. The growth of Myton was facilitated by the completion of the supply route that ran through the natural corridor of Nine Mile Canyon and the settlement attracted people from various parts of the world including Denmark, England, Switzerland, Sweden, Wales, and Germany, as well as many states of the Union (Ibid 156).

The Price-Myton Freight Road originated with the establishment of Fort Duchesne in 1886. The 300 or so troops stationed at this remote fort required a means of acquiring supplies and, as a result, a service route was chosen that essentially linked the fort to the developing market center of Price. Initially, supplies for the Fort were obtained from Union Pacific Railroad stations in Wyoming, following a route that crossed the Uinta Mountains. However, traversing these mountains in the winter time proved hazardous. Thus, soldiers constructed a wagon road and telegraph line to Price, ensuring a year-round supply of provisions for the Fort. At Price, goods awaiting shipment to the Fort were stored in a warehouse monitored by an army quartermaster (Geary 1981: 138). One year after the establishment of Fort Duchesne, records from the army quartermaster indicate that a contract for the haul of two million pounds of supplies (at \$1.12 per hundred) was written (Geary 1981: 141). With such large government contracts, a busy freighting business was soon established. The use of the road, however, was not restricted to the shipment of government freight, as the road also serviced the communities of Ashley Valley, the Ute Indian Reservation and Vernal (Watt 1997: 31). Furthermore, a regular mail service between Price and Vernal was established in the late 1880s, with a stagecoach departing Price two times in 1888, and then three times a week by 1889 (Burton 1996: 216). According to Geary (1981: 141), the road was one of the most heavily traveled in eastern Utah for some twenty years.

The business of freighting was given an added boost with the establishment of the Uinta Basin's gilsonite industry. Gilsonite occurs in both a solid and semi-solid state having the structure of hydrocarbon, but is more specifically a bitumen, and is a mineral that has a wide variety of uses (Remington 1959: 283). The versatility of gilsonite is perhaps where its greatest value lies, and the mineral has been commonly used in the manufacture of paints and varnish, insulation for electrical wires, lubricants for machinery, rubber for boots and shoes, and even for chewing gum. The gilsonite mines that developed within the Uinta Basin enabled Price-Myton freighters to capitalize on a two-way commerce system, as Watt (1997: 32) states "Freighters could load their empty [supply] wagons with 200-pound burlap bags of gilsonite for the return trip to Price, where the bags were loaded onto rail cars and shipped east." In 1905, the Uintah Railway set out to capture the gilsonite trade and so constructed a spur from Mack, Colorado, to Dragon, Utah. This new rail network supplied most of Uinta Basin's transportation needs, signaling the beginning of the end for the freight trade along the Price-Myton route. However, the road was still used for another ten years or so, albeit at lesser scale, with the government's decision to open the Ute Indian reservation to settlement. Furthermore, Duchesne residents, unhappy with their mail service provided by the Uintah Railway, pushed for the reestablishment of a Vernal - Price route through Nine Mile Canyon. As a result of this request, postal officials began operating a mail and stage line that followed the old freight trade route. However, this lasted for only two years when an alternate route between Vernal and Colton (via Indian Canyon further to the north) was established (Burton 1996: 219). The Fort itself was dismantled in 1910.

Livestock was a primary industry in the region from early on, along with agriculture, timbering, mining, beekeeping, and freighting (Burton 1996). Most of the early Mormon settlers had only a few head of cattle, that were grazed in cooperative herds on shared pasture lands, however, large herds of cattle had been seasonally grazed in the region from as early as the 1850s (Ibid 108). Before the early 1930s, grazing in the Tavaputs Plateau region, at the southern edge of the Uinta Basin, was mostly unregulated. This, combined with the lush grassland environment of the area at the time, attracted many ranchers with their cattle, horses, and sheep (Barton 1998). By 1893, a record number of cattle were being sold. Sheep quickly became an important commodity, after their introduction to the region in 1879, and by the early 1890s, more sheep were being ranged in the region than cattle (Burton 1996). By 1935, herds of both cattle and sheep were being decreased to halt overgrazing. In 1996, only two large, year-round herds remained in Uintah County, although small farms and ranches in the region still keep small quantities of stock animals.

The Civilian Conservation Corps (CCC) contributed to local agricultural economy by constructing several dams and irrigation ditches during the 1930s. The Vernal camp was the first CCC camp established in the Uinta Basin in 1933. Two more camps were established at Moon Lake and Bridgeland in 1934. Four temporary camps were established in Yellowstone Canyon, near Altonah, in Myton, and in the Uinta Canyon. The CCC program not only alleviated drought concerns for local farmers and ranchers, but also provided employment for Duchesne County residents, as well as unemployed young men from Virginia. The program continued from 1933 through 1942 (Barton 1998:248-250).

## SURVEY METHODOLOGY

An intensive pedestrian survey was performed for this project which is considered 100% coverage. The project area was examined for cultural resources by the archaeologists walking parallel transects spaced no more than 10 m (30 ft) apart. Ground visibility was considered good. A total of 400 acres was inventoried on State of Utah Trust Lands Administration (SITLA) property.

Archaeological sites are defined as spatially definable areas with ten or more artifacts and/or features. Sites were documented by the archaeologists walking transects across the site, spaced no more than 3 m (10 ft) apart and marking the locations of cultural materials with pin flags. This procedure allowed clear definition of site boundaries and artifact concentrations. Maps were generated employing a Trimble GeoExplorer (NAD27) to point-provenience diagnostic artifacts and other relevant features in reference to the site datum, a steel rebar stamped with a temporary site number. Archaeological sites were plotted on a 7.5' USGS quadrangle, photographed, and documented with site data entered on an Intermountain Antiquities Computer System (IMACS, 1990 version) inventory form (Appendix A).

## INVENTORY RESULTS

The inventory of Newfield Exploration's block parcels in T9S, R16E, Section 16 resulted in the documentation of two new archaeological sites (42Dc2444 and 42Dc2445).

Smithsonian Site No.: 42Dc2444  
Temporary Site No.: MOAC 07-348-1  
Legal Description: SW/NW/NW of Sec. 16, T9S, R16E  
NRHP Eligibility: Not Eligible

Description: This is a small trash scatter most likely representing a short term range camp situated along the crest of a prominent knoll. Cultural materials are limited to tin cans and a glass bottle. Tin cans (N=12) include two hole-in-cap food containers; three hole-in-top milk cans with knife cut openings; five pocket tobacco tins; and two cut-around sanitary cans. Glass is limited to the base of a clear medicine bottle manufactured by the Illinois Glass Co. (1916-1929). In addition some bailing wire was observed.

Smithsonian Site No.: 42Dc2445  
Temporary Site No.: MOAC 07-348-2  
Legal Description: NE/NE/SW of Sec. 16, T9S, R16E  
NRHP Eligibility: Eligible

Description: This is a rockshelter located under a sandstone outcrop along a southeastern ridge slope. The site consists of a collapsed overhang with >80 cm of exfoliated debris and boulders. The rear wall of the shelter is oxidized, although no ash or charcoal staining was observed. Fire-cracked rock is scattered throughout the site. The artifact assemblage is comprised of one siltstone utilized flake and two siltstone tertiary flakes which appear to have been derived from the same material. The site appears to have been only briefly occupied.

## NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

The National Register Criteria for Evaluation of Significance and procedures for nominating cultural resources to the National Register of Historic Places (NRHP) are outlined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association, and that they:

- a)...are associated with events that have made a significant contribution to the broad patterns of our history; or
- b)...are associated with the lives of persons significant to our past; or
- c)...embody the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d)...have yielded or may be likely to yield information important in prehistory or history.

The cultural resource inventory resulted in the documentation of two new archaeological sites (42Dc2444 and 42Dc2445). Site 42Dc2444 is a historic trash scatter containing a restricted class and quantity of cultural materials and no features. Therefore, the site is recommended not eligible for the NRHP since it fails to contribute to the prehistory of the area (Criterion D). In addition, the site is not associated with any known significant event(s) or person(s) (Criteria A and B), nor does it represent the work of a master (Criterion C). Site 42Dc2445 is a prehistoric rockshelter that may represent a single prehistoric occupation and contains cultural fill that could provide <sup>14</sup>C and subsistence-related data. The site is recommended eligible to the NRHP under Criterion D because it is likely to address such research domains as chronology, subsistence strategies, and land use patterns.

#### MANAGEMENT RECOMMENDATIONS

The inventory of Newfield Exploration's ten 40-acre parcels in Township 9S, Range 16E Section 16 resulted in the documentation of two new archaeological sites (42Dc2444 and 42Dc2445). Site 42Dc2445 is recommended eligible to the NRHP and should be avoided by any ground disturbing activities. Based on the adherence to this recommendation, a determination of "no historic properties affected" pursuant to Section 106, CFR 800 is proposed for this project.



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APPENDIX A

INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM (IMACS)  
SITE INVENTORY FORMS 42Dc2444 and 42Dc2445

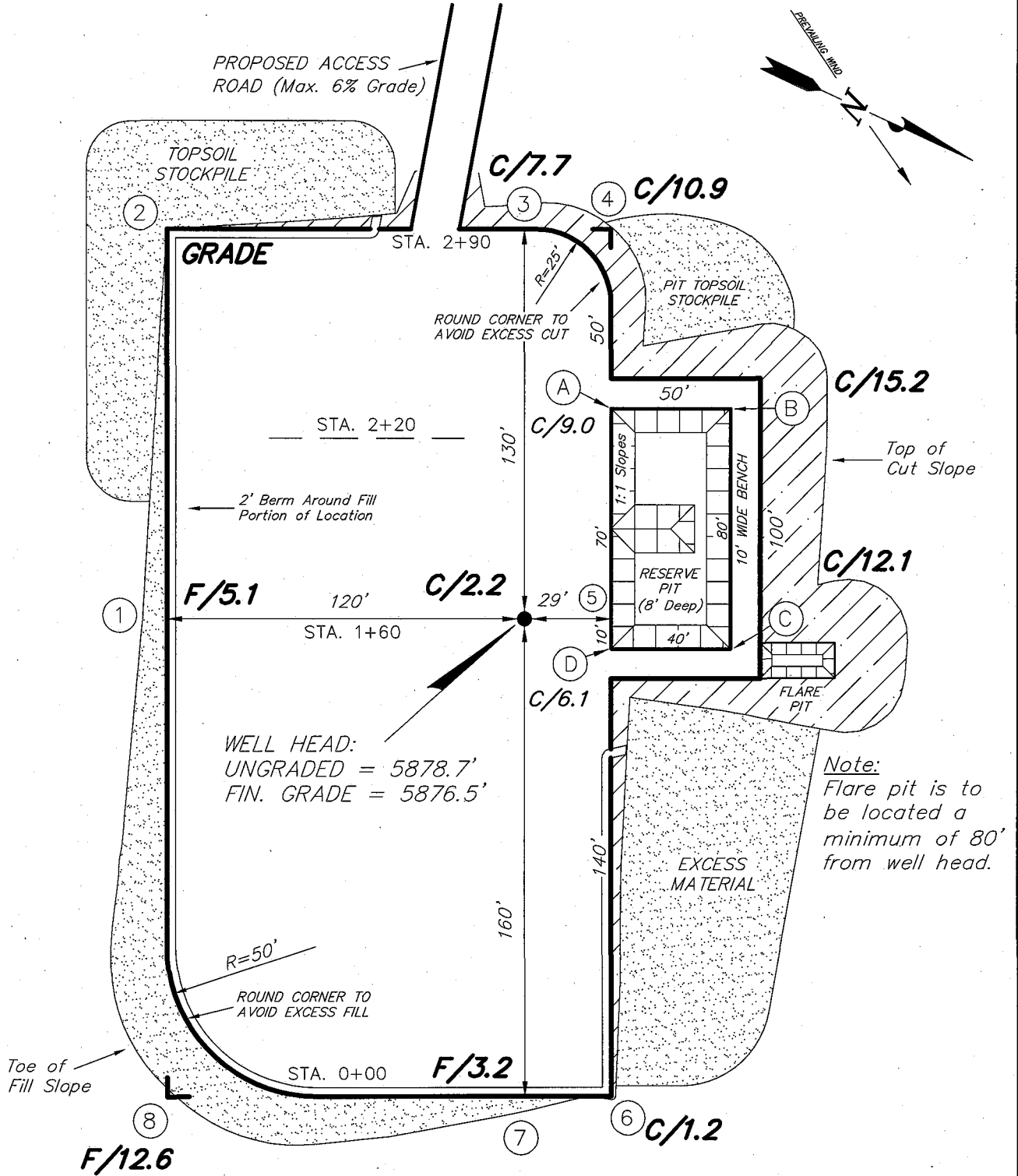
On File At:

Utah Division of State History  
Salt Lake City, Utah

NEWFIELD PRODUCTION COMPANY

9 MILE 16-16-9-16

Section 16, T9S, R16E, S.L.B.&M.



## REFERENCE POINTS

210' NORTHEAST = 5871.7'

$$260' \text{ NORTHEAST} = 5870.6'$$
$$170' \text{ SOUTHEAST} = 5869.4'$$
$$220' \text{ SOUTHEAST} = 5864.6'$$

SURVEYED BY: C.M.

DATE SURVEYED: 10-08-07

DRAWN BY: F.T.M.

DATE DRAWN: 11-02-07

SCALE: 1" = 50'

REVISÉD:

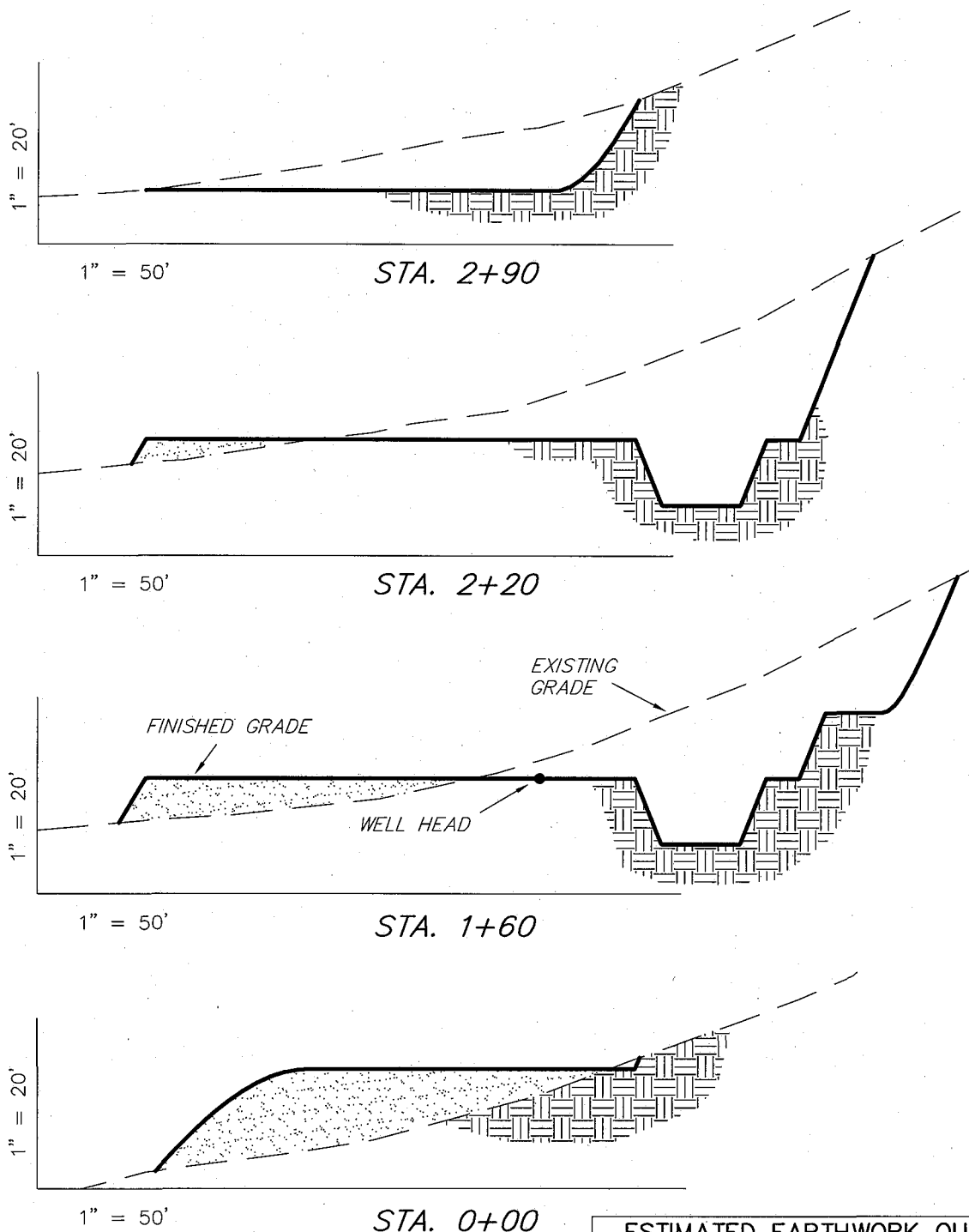
**Tri State** (4)  
Land Surveying, Inc.

(435) 781-2501

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# NEWFIELD PRODUCTION COMPANY

## CROSS SECTIONS 9 MILE 16-16-9-16



NOTE:  
UNLESS OTHERWISE NOTED  
CUT SLOPES ARE AT 1:1  
FILL SLOPES ARE AT 1.5:1

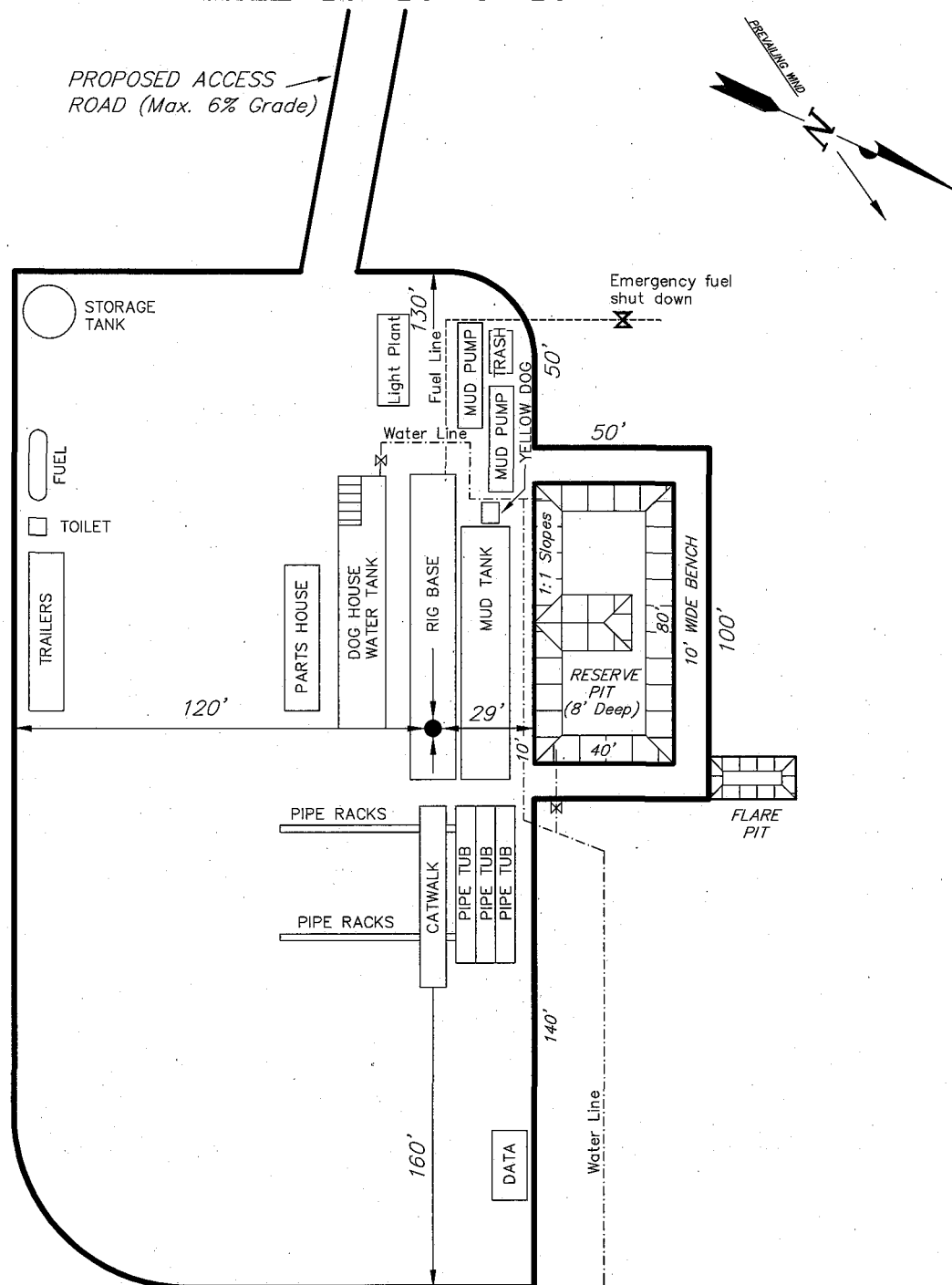
ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards)				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	5,470	5,470	Topsoil is not included in Pad Cut	0
PIT	640	0		640
TOTALS	6,110	5,470	1,090	640

SURVEYED BY: C.M.	DATE SURVEYED: 10-08-07
DRAWN BY: F.T.M.	DATE DRAWN: 11-02-07
SCALE: 1" = 50'	REVISED:

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501

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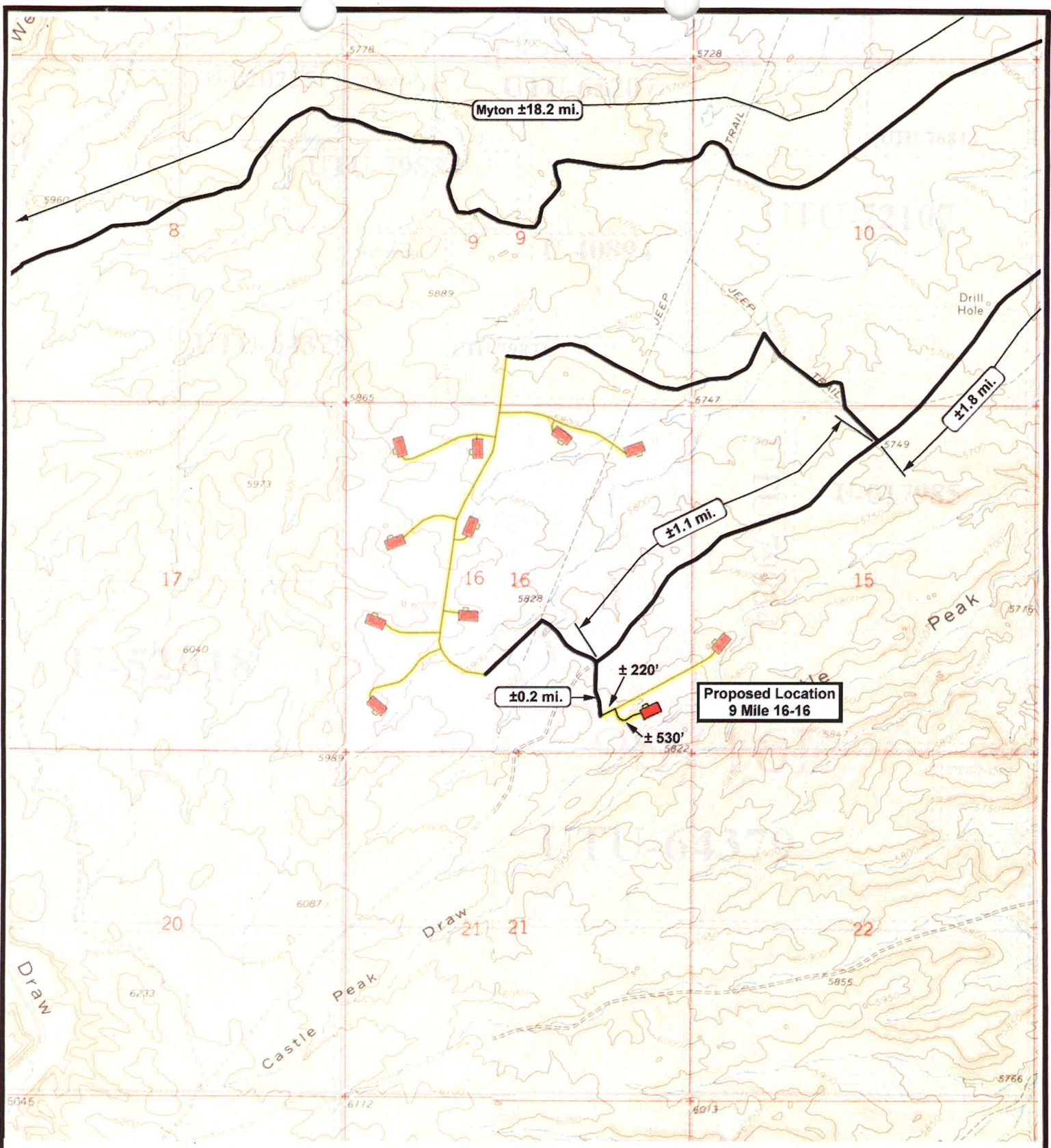
## TYPICAL RIG LAYOUT 9 MILE 16-16-9-16



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DRAWN BY: F.T.M.	DATE DRAWN: 11-02-07
SCALE: 1" = 50'	REVISED:

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501





**NEWFIELD**  
Exploration Company

**9 Mile 16-16-9-16**  
**SEC. 16, T9S, R16E, S.L.B.&M.**



**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

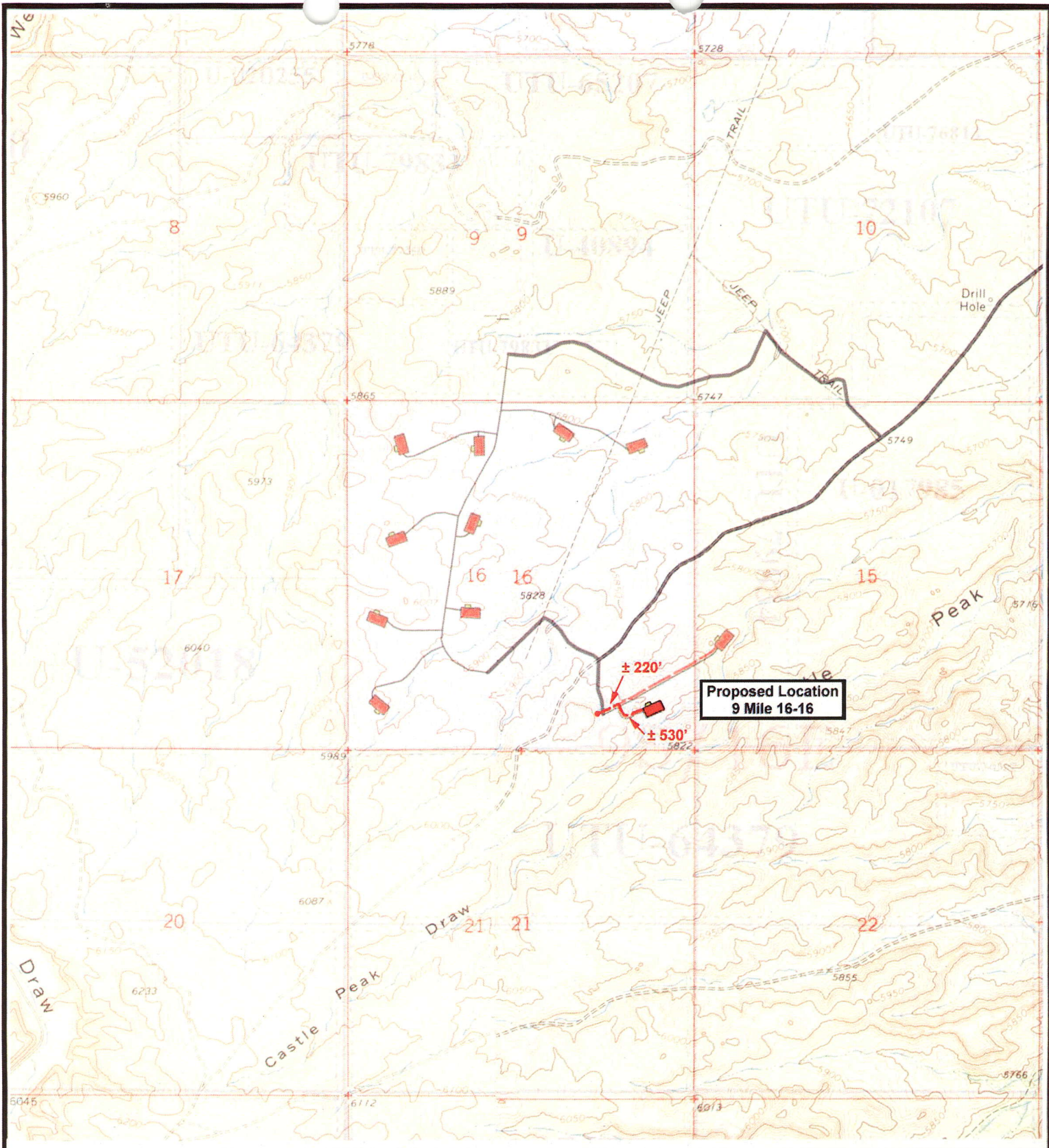
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DRAWN BY: mw  
DATE: 11-01-2007

**Legend**  
Existing Road  
Proposed Access

TOPOGRAPHIC MAP

**"B"**





**NEWFIELD**  
Exploration Company

**9 Mile 16-16-9-16**  
**SEC. 16, T9S, R16E, S.L.B.&M.**



**Tri-State**  
*Land Surveying Inc.*  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

**SCALE: 1" = 2,000'**  
**DRAWN BY: mw**  
**DATE: 11-01-2007**

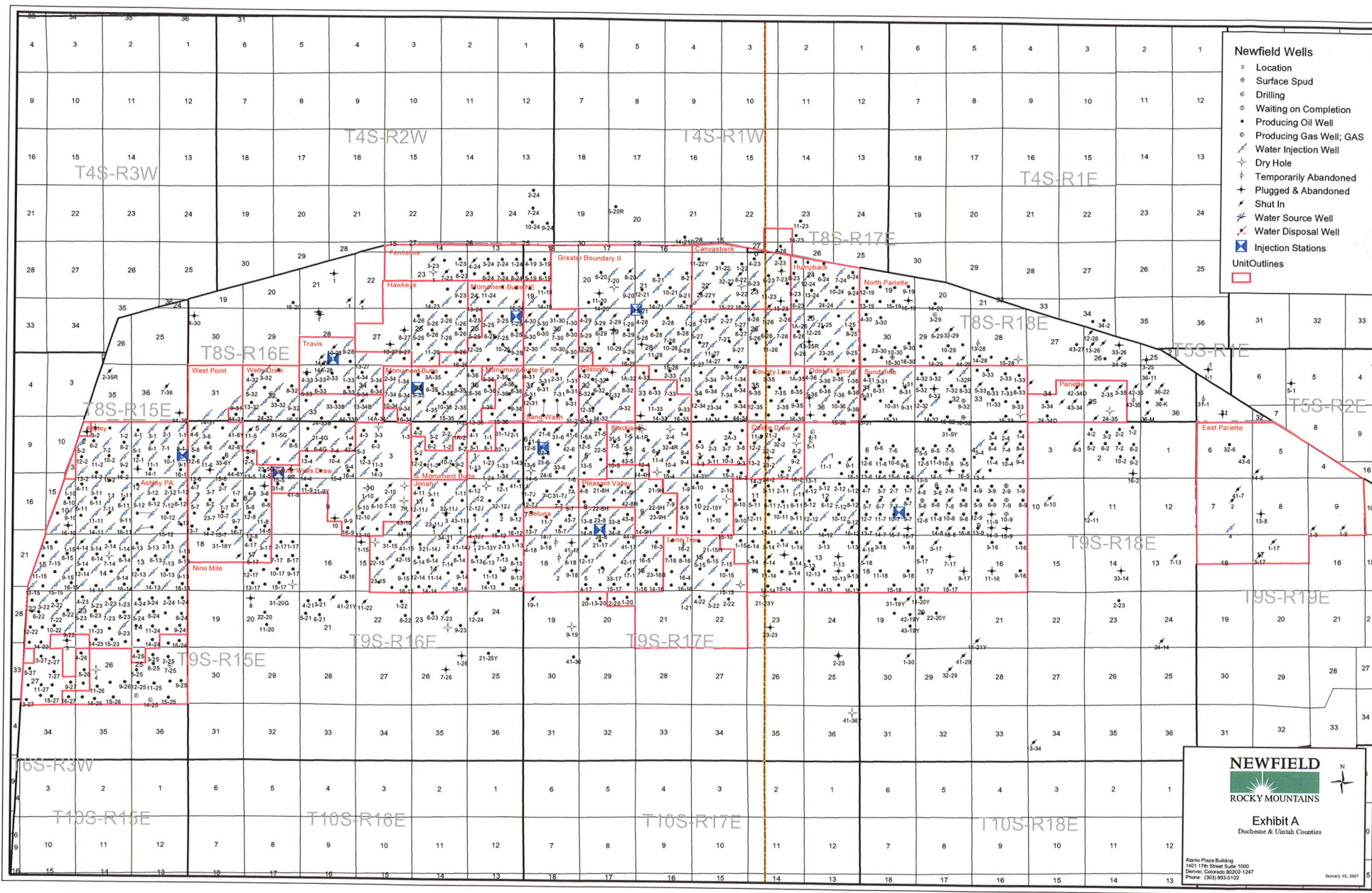
**Legend**

- Roads
- Proposed Gas Line

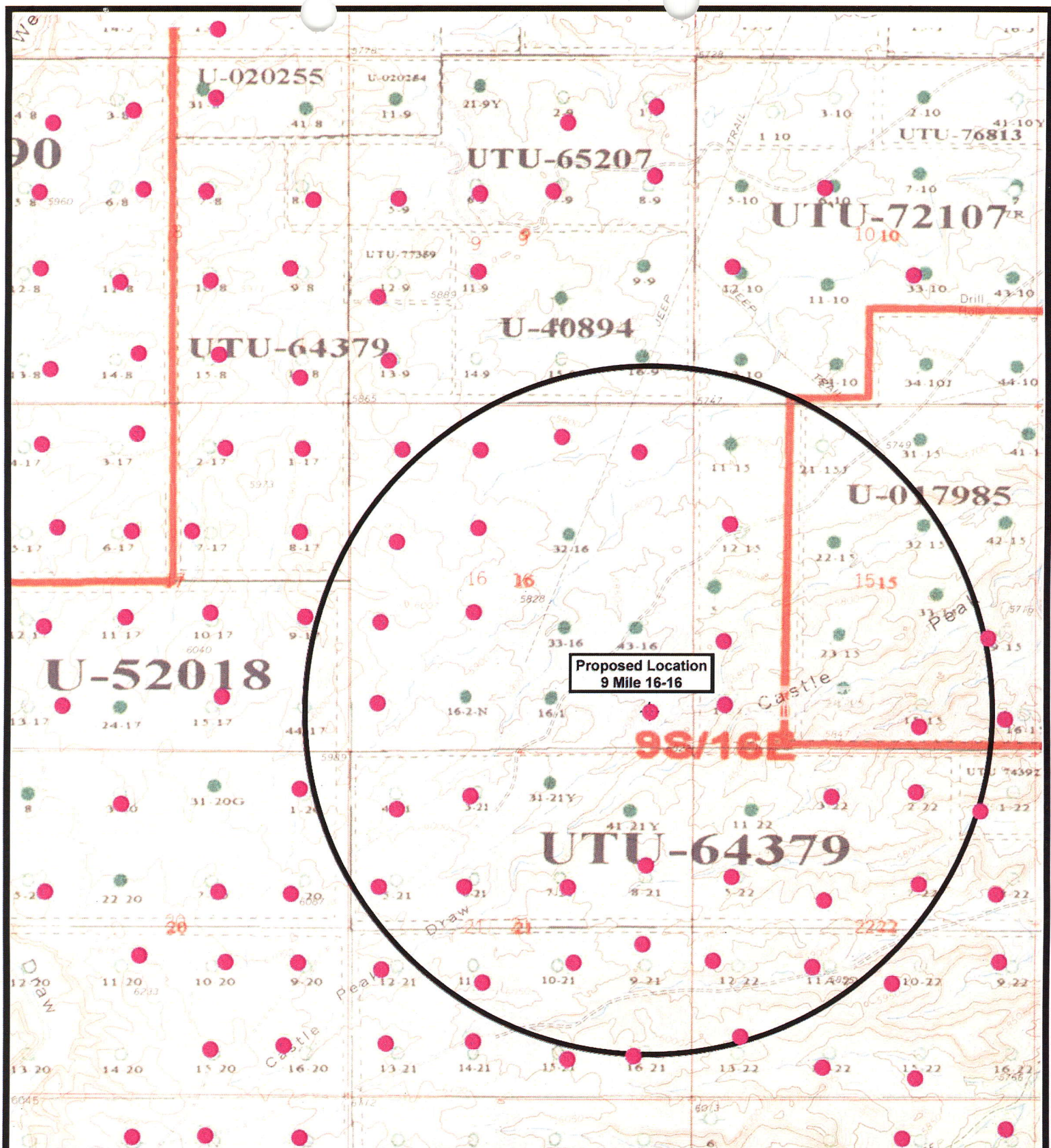
**TOPOGRAPHIC MAP**

**"C"**









Proposed Location  
9 Mile 16-16

98/16E

UTU-64379

U-017985

U-52018

UTU-64379

UTU-65207

UTU-72107

UTU-76813

U-020255

U-020264

**NEWFIELD**  
Exploration Company

**9 Mile 16-16-9-16**  
**SEC. 16, T9S, R16E, S.L.B.&M.**

**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
DRAWN BY: mw  
DATE: 11-01-2007

**Legend**

- Location
- One-Mile Radius

**Exhibit "B"**

# 2-M SYSTEM

Blowout Prevention Equipment Systems

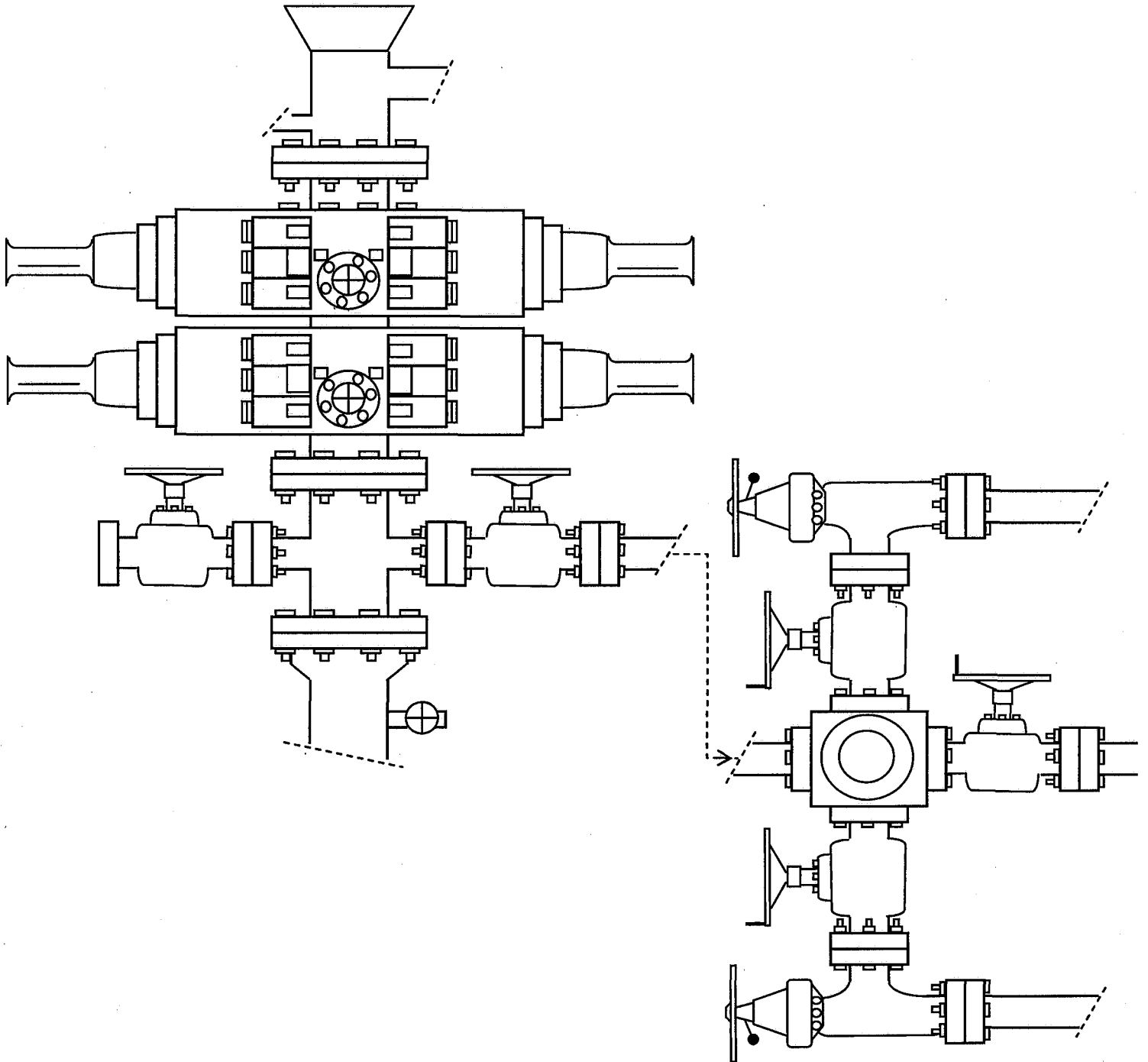


EXHIBIT C

Exhibit "D"

CULTURAL RESOURCE INVENTORY OF  
NEWFIELD EXPLORATION'S TEN 40 ACRE PARCELS IN  
TOWNSHIP 9S, RANGE 16E, SECTION 16  
DUCHESNE COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

State of Utah  
School & Institutional Trust Lands Administration  
Salt Lake City

Prepared Under Contract With:

Newfield Exploration Company  
Rt. 3 Box 3630  
Myton, UT 84052

Submitted By:

Keith R. Montgomery  
Montgomery Archaeological Consultants, Inc.  
P.O. Box 219  
Moab, Utah 84532

MOAC Report No. 07-348

October 31, 2007

United States Department of Interior (FLPMA)  
Permit No. 07-UT-60122

State of Utah Public Lands Policy  
Archaeological Survey Permit No. 117

State of Utah Antiquities Project (Survey)  
Permit No. U-07-MQ-1297s

**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 11/29/2007

API NO. ASSIGNED: 43-013-33854

WELL NAME: STATE 16-16-9-16

OPERATOR: NEWFIELD PRODUCTION ( N2695 )

PHONE NUMBER: 435-646-3721

CONTACT: MANDIE CROZIER

PROPOSED LOCATION:

SESE 16 090S 160E

SURFACE: 0658 FSL 0664 FEL

BOTTOM: 0658 FSL 0664 FEL

COUNTY: DUCHESNE

LATITUDE: 40.02540 LONGITUDE: -110.1165

UTM SURF EASTINGS: 575386 NORTHINGS: 4430740

FIELD NAME: MONUMENT BUTTE ( 105 )

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	1/24/08
Geology		
Surface		

LEASE TYPE: 3 - State

LEASE NUMBER: ML-16532

SURFACE OWNER: 3 - State

PROPOSED FORMATION: GRRV

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Fed[] Ind[] Sta[] Fee[]  
(No. B001834 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. MUNICIPAL )  
☒ RDCC Review (Y/N)  
(Date: )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

LOCATION AND SITING:

\_\_\_ R649-2-3.  
Unit: \_\_\_\_\_  
☒ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
\_\_\_ R649-3-3. Exception  
\_\_\_ Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_  
\_\_\_ R649-3-11. Directional Drill

COMMENTS:

Needs Presb (12-13-07)

STIPULATIONS:

1- Spacing Shp  
2- STATEMENT OF BASIS  
3- Surface Csg Cont Shp





# Application for Permit to Drill

## Statement of Basis

12/19/2007

Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Ownr</b>	<b>CBM</b>
635	43-013-33854-00-00		OW	S	No
<b>Operator</b>	NEWFIELD PRODUCTION COMPANY		<b>Surface Owner-APD</b>		
<b>Well Name</b>	STATE 16-16-9-16		<b>Unit</b>		
<b>Field</b>	MONUMENT BUTTE		<b>Type of Work</b>		
<b>Location</b>	SESE 16 9S 16E S 658 FSL 664 FEL GPS Coord (UTM) 575386E 4430740N				

### Geologic Statement of Basis

Newfield proposes to set 290' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,900'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 16. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought high enough to cover the estimated base of the moderately saline ground water.

Brad Hill  
APD Evaluator

12/19/2007  
Date / Time

### Surface Statement of Basis

The general area is approximately 21 miles southwest of Myton, Utah in the upper Castle Peak area. Castle Peak Draw runs in a northeasterly direction about 14 miles and joins Pariette Draw. Pariette Draw continues in a southeasterly direction about 6 miles and joins the Green River about 6 miles below Ouray Utah. Pariette Draw contains a perennial stream somewhat consisting of irrigation runoff and seepage. No streams springs or seeps occur in the area. An occasional pond constructed to store runoff for livestock or wildlife exists. Drainages are ephemeral only flowing during spring snowmelt or following intense summer rainstorms. Broad flats or rolling topography intersected by drainages with gentle to moderate side-slopes characterize the area. Access to the area from Myton, Utah is following State of Utah Hwy. 40 and Duchesne County and oilfield development roads a distance of 21.4 miles. New construction of 530 feet of new road will be required.

The proposed State #16-16-9-16 oil well location is on the northeast slope of a ridge with the reserve pit beginning near the break of the ridge. Here it is moderately steep but the terrain becomes gentler for the pad as the slope extends northeasterly toward a drainage. A shallow drainage to the east also parallels that side of the location. No drainages intersect the location and no diversions will be required. A constructed catchment pond exists about ¼ mile to the northeast. Its condition is not known. The selected site poses no apparent surface concerns and appears to be a good location for constructing a pad, drilling and operating a well. The area was covered with about 10 inches of snow during the evaluation. Both the surface and minerals are owned by SITLA.

Daniel Emmett representing the Utah Division of Wildlife Resources stated the area is classified as sage grouse brooding habitat and crucial yearlong antelope habitat. He recommended no restriction periods for these two species. Also no other wildlife is expected to be significantly affected. Mr. Emmett gave Mr. Allred of Newfield Production Company and Mr. Davis of SITLA a copy of his evaluation and also a seed mix recommendation to be used when the reserve pit and location are reclaimed.

Floyd Bartlett  
Onsite Evaluator

12/13/2007  
Date / Time



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# **Application for Permit to Drill**

## **Statement of Basis**

12/19/2007

**Utah Division of Oil, Gas and Mining**

Page 2

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### **Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

# **ON-SITE PREDRILL EVALUATION**

## **Utah Division of Oil, Gas and Mining**

**Operator** NEWFIELD PRODUCTION COMPANY  
**Well Name** STATE 16-16-9-16  
**API Number** 43-013-33854-0 **APD No** 635 **Field/Unit** MONUMENT BUTTE  
**Location:** 1/4,1/4 SESE **Sec** 16 **Tw** 9S **Rng** 16E 658 FSL 664 FEL  
**GPS Coord (UTM)** 575390 4430752 **Surface Owner**

### **Participants**

Floyd Bartlett (DOGM), David Allred (Newfield Production Company), Cory Miller (Tri-state Land Surveying), Jim Davis (SITLA), Daniel Emmett (Utah Division of Wildlife Resources)

### **Regional/Local Setting & Topography**

The general area is approximately 21 miles southwest of Myton, Utah in the upper Castle Peak area. Castle Peak Draw runs in a northeasterly direction about 14 miles and joins Pariette Draw. Pariette Draw continues in a southeasterly direction about 6 miles and joins the Green River about 6 miles below Ouray Utah. Pariette Draw contains a perennial stream somewhat consisting of irrigation runoff and seepage. No streams springs or seeps occur in the area. An occasional pond constructed to store runoff for livestock or wildlife exists. Drainages are ephemeral only flowing during spring snowmelt or following intense summer rainstorms. Broad flats or rolling topography intersected by drainages with gentle to moderate side-slopes characterize the area. Access to the area from Myton, Utah is following State of Utah Hwy. 40 and Duchesne County and oilfield development roads a distance of 21.4 miles. New construction of 530 feet of new road will be required.

The proposed State #16-16-9-16 oil well location is on the northeast slope of a ridge with the reserve pit beginning near the break of the ridge. Here it is moderately steep but the terrain becomes gentler for the pad as the slope extends northeasterly toward a drainage. A shallow drainage to the east also parallels that side of the location. No drainages intersect the location and no diversions will be required. A constructed catchment pond exists about ¼ mile to the northeast. Its condition is not known. The selected site poses no apparent surface concerns and appears to be a good location for constructing a pad, drilling and operating a well. The area was covered with about 10 inches of snow during the evaluation. Both the surface and minerals are owned by SITLA.

### **Surface Use Plan**

#### **Current Surface Use**

Grazing  
Recreational  
Wildlife Habitat

#### **New Road**

Miles	Well Pad	Src Const Material	Surface Formation
0.1	Width 209	Onsite	UNTA

**Ancillary Facilities** N

### **Waste Management Plan Adequate?**

### **Environmental Parameters**

**Affected Floodplains and/or Wetland** N

#### **Flora / Fauna**

Area was covered with snow. Vegetation is a Deseret shrub type. Identified or expected vegetation consisted of shadscale, mustard weed, horsebrush, broom snakeweed, and spring annuals.

Cattle, prairie dogs, antelope, small mammals and birds. Golden eagle have been sited in the general area.

### Soil Type and Characteristics

Moderately deep sandy clay loam with some surface rock.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y    Paleo Potential Observed? N    Cultural Survey Run? Y    Cultural Resources? N

### Reserve Pit

#### Site-Specific Factors

#### Site Ranking

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	300 to 1000	2
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	300 to 1320	10
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	<10	0
Affected Populations	<10	0
Presence Nearby Utility Conduits	Not Present	0

Final Score 27 1 Sensitivity Level

#### Characteristics / Requirements

A 40' x 80' x 8' deep reserve pit is planned in an area of cut on the northwest side of the location. A pit liner is required. Newfield commonly uses a 16 mil liner.

Closed Loop Mud Required? N    Liner Required? Y    Liner Thickness 16    Pit Underlayment Required? Y

### Other Observations / Comments

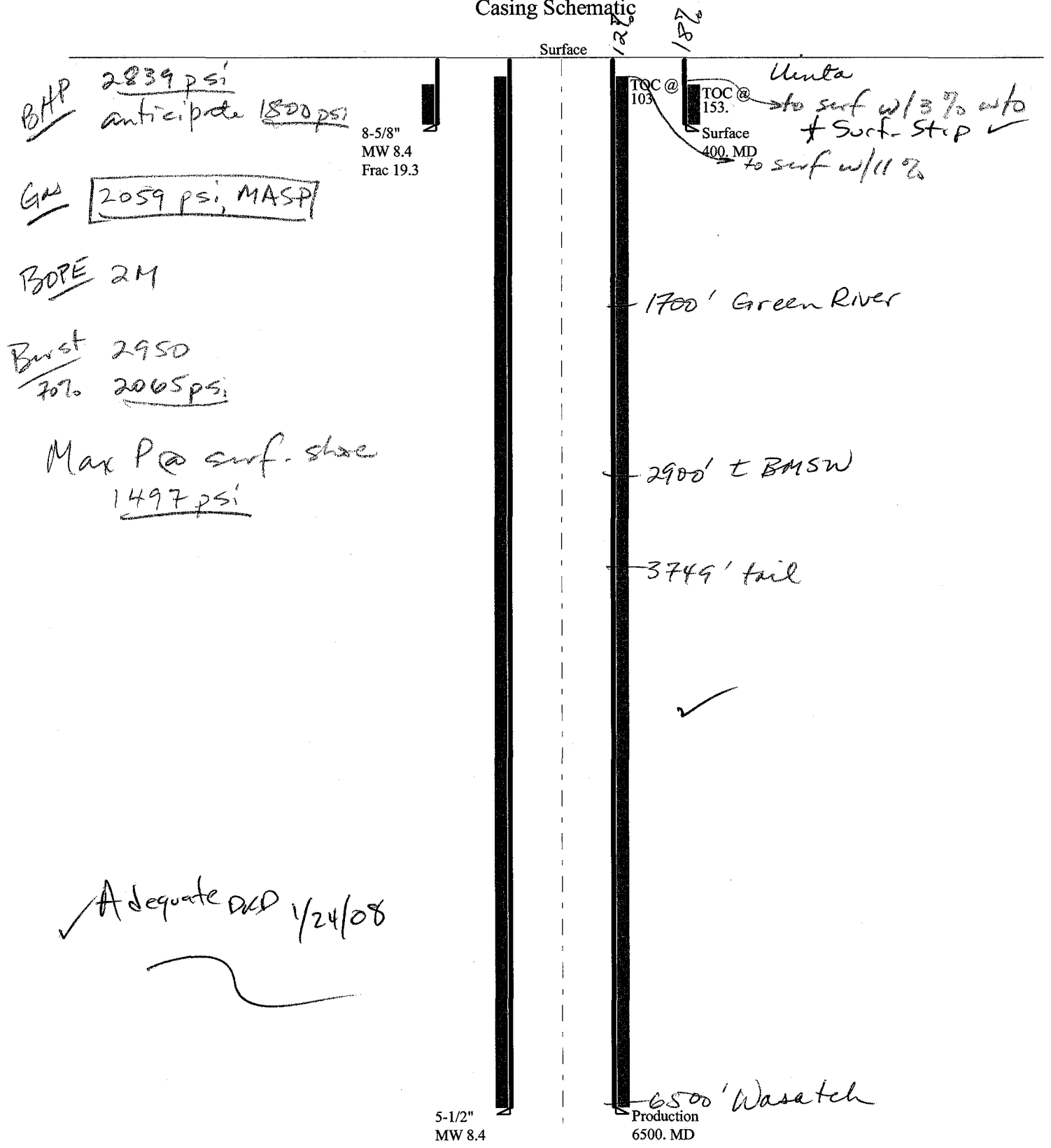
About 10 inches of snow covered the area. ATV's were used to access the location.

Floyd Bartlett  
Evaluator

12/13/2007  
Date / Time

2008-01 Newfield State 16-16-9-16

Casing Schematic



# BOPE REVIEW

<b>Well Name</b>	Newfield State 16-16-9-16 API# 43-013-33854
------------------	---

<b>INPUT</b>				
Well Name	Newfield State 16-16-9-16 API# 43-013-33854			
	String 1	String 2	String 3	String 4
Casing Size (")	20	13 3/8		
Setting Depth (TVD)	400	6500		
Previous Shoe Setting Depth (TVD)	0	400	0	0
Max Mud Weight (ppg)	8.4	8.4		
BOPE Proposed (psi)	0	2000		
Casing Internal Yield (psi)	2950	4810		

<b>Calculations</b>	<b>String 1</b>		<b>20 "</b>	
Max BHP [psi]	$.052 * \text{Setting Depth} * \text{MW} =$		175	
				BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$		127	NO
MASP (Gas/Mud) [psi]	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$		87	NO
				*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$		87	NO <i>O.K.</i>
Required Casing/BOPE Test Pressure			400 psi	
*Max Pressure Allowed @ Previous Casing Shoe =			0 psi	*Assumes 1psi/ft frac gradient

<b>Calculations</b>	<b>String 2</b>		<b>13 3/8 "</b>	
Max BHP [psi]	$.052 * \text{Setting Depth} * \text{MW} =$		2839	
				BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$		2059	NO
MASP (Gas/Mud) [psi]	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$		1409	YES ✓
				*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$		1497	NO
Required Casing/BOPE Test Pressure			2000 psi	
*Max Pressure Allowed @ Previous Casing Shoe =			400 psi	*Assumes 1psi/ft frac gradient

Well name:	<b>2008-01 Newfield State 16-16-9-16</b>	
Operator:	<b>Newfield Production Company</b>	Project ID:
String type:	Surface	43-013-33854
Location:	Duchesne County	

**Design parameters:**
**Collapse**

Mud weight: 8.400 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 81 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 290 ft

Cement top: 153 ft

**Burst**

Max anticipated surface pressure: 352 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 400 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on buoyed weight.  
Neutral point: 349 ft

**Non-directional string.**
**Re subsequent strings:**

Next setting depth: 6,500 ft  
Next mud weight: 8.400 ppg  
Next setting BHP: 2,836 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 400 ft  
Injection pressure: 400 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	400	8.625	24.00	J-55	ST&C	400	400	7.972	143

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	175	1370	7.851	400	2950	7.38	8	244	29.09 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Minerals

Phone: 801-538-5357  
FAX: 801-359-3940

Date: January 11, 2008  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 400 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:	<b>2008-01 Newfield State 16-16-9-16</b>	
Operator:	<b>Newfield Production Company</b>	Project ID:
String type:	Production	43-013-33854
Location:	Duchesne County	

**Design parameters:**
**Collapse**

Mud weight: 8.400 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 166 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 103 ft

**Burst**

Max anticipated surface pressure: 1,406 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 2,836 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

**Non-directional string.**

Tension is based on buoyed weight.  
Neutral point: 5,674 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	6500	5.5	15.50	J-55	LT&C	6500	6500	4.825	868.6
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2836	4040	1.424	2836	4810	1.70	88	217	2.47 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Minerals

Phone: 801-538-5357  
FAX: 801-359-3940

Date: January 11, 2008  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 6500 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

**From:** Ed Bonner  
**To:** Mason, Diana  
**Date:** 1/8/2008 12:05 PM  
**Subject:** Well Clearance

**CC:** Davis, Jim; Garrison, LaVonne; Hill, Brad; Jarvis, Dan

The following wells have been given cultural resources clearance by the Trust Lands Cultural Resources Group:

ConocoPhillips Company  
Utah 29-574D (API 43 015 30735)

EOG Resources, Inc  
CWU 956-32 (API 43 047 39515)

Kerr McGee Oil & Gas Onshore LP  
NBU 1021-2N (API 43 047 38840)

Newfield Production Company  
Wells Draw Fed C-5-9-16 (API 43 013 33753)  
State 1A-16-9-16 (API 43 013 33845)  
State 2A-16-9-16 (API 43 013 33846)  
State 3-16-9-16 (API 43 013 33847)  
State 4-16-9-16 (API 43 013 33848)  
State 5-16-9-16 (API 43 013 33849)  
State 6-16-9-16 (API 43 013 33850)  
State 12-16-9-16 (API 43 013 33852)  
State 13-16-9-16 (API 43 013 33853)  
State 16-16-9-16 (API 43 013 33854)

Pioneer Natural Resources USA, Inc  
Main Canyon State 12-16-15-23 (API 43 047 39695)  
Main Canyon State 34-21-15-23 (API 43 047 39696)  
Horse Point State 34-10-16-23 (API 43 019 31558)  
Horse Point State 41-1-16-23 (API 43 019 31599)  
Grand Canyon State 23-35-15.5-23 (API 43 019 31560)

If you have any questions regarding this matter please give me a call.



**Helen Sadik-Macdonald - Newfield wells**

---

**From:** "Hans Wychgram"  
**To:**  
**Date:** 01/09/2008 3:52 PM  
**Subject:** Newfield wells  
**CC:** "Brad Mecham" , "Mandie Crozier"

---

Helen,

As per our conversation this afternoon, Newfield agrees to set 400' of surface casing on the following wells:

State 3-16-9-16

State 4-16-9-16

State 5-16-9-16

State 6-16-9-16

State 11-16-9-16

State 12-16-9-16

State 13-16-9-16

State 16-16-9-16

Gilsonite L-32-8-17

Monument Butte F-36-8-16

Also, we discussed setting 300' of 20" conductor casing on the following deep gas wells:

Beluga 16T-5-9-17

Monument Butte 4-36T-8-16

Thanks,

Hans Wychgram



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

January 24, 2008

Newfield Production Company  
Rt. #3, Box 3630  
Myton, UT 84052

Re: State 16-16-9-16 Well, 658' FSL, 664' FEL, SE SE, Sec. 16, T. 9 South, R. 16 East,  
Duchesne County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-33854.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Duchesne County Assessor  
SITLA

Operator: Newfield Production Company  
Well Name & Number State 16-16-9-16  
API Number: 43-013-33854  
Lease: ML-16532

Location: SE SE Sec. 16 T. 9 South R. 16 East

### Conditions of Approval

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
- 24 hours prior to spudding the well – contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
- Any changes to the approved drilling plan – contact Dustin Doucet

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at: (801) 538-5338 office (801) 942-0873 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.
7. Surface casing shall be cemented to the surface.

## STATE OF UTAH

## DIVISION OF OIL, GAS, AND MINING

1. **SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use "APPLICATION FOR PERMIT TO DRILL OR DEEPEN" form for such proposals.

OIL WELL ☐ GAS WELL ☐ OTHER ☒2. NAME OF OPERATOR  
**NEWFIELD PRODUCTION COMPANY**3. ADDRESS AND TELEPHONE NUMBER  
**Rt. 3 Box 3630, Myton Utah 84052**  
**435-646-3721**4. LOCATION OF WELL  
  
Footages **658 FSL 664 FEL**  
  
QQ, SEC, T, R, M: **SE/SE Section 16, T9S R16E**5. LEASE DESIGNATION AND SERIAL NO.  
**ML-16532**6. IF INDIAN, ALLOTTEE OR TRIBAL NAME  
**N/A**7. UNIT AGREEMENT NAME  
**NA**8. WELL NAME AND NUMBER  
**STATE 16-16-9-16**9. API NUMBER  
**43-013-33854**10. FIELD AND POOL, OR WILDCAT  
**MONUMENT BUTTE**COUNTY **DUCHESNE**  
STATE **UTAH**11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

## NOTICE OF INTENT:

(Submit in Duplicate)

☐ ABANDON ☐ NEW CONSTRUCTION

☐ REPAIR CASING ☐ PULL OR ALTER CASING

☐ CHANGE OF PLANS ☐ RECOMPLETE

☐ CONVERT TO INJECTION ☐ REPERFORATE

☐ FRACTURE TREAT OR ACIDIZE ☐ VENT OR FLARE

☐ MULTIPLE COMPLETION ☐ WATER SHUT OFF

☒ OTHER APD Change

## SUBSEQUENT REPORT OF:

(Submit Original Form Only)

☐ ABANDON\* ☐ NEW CONSTRUCTION

☐ REPAIR CASING ☐ PULL OR ALTER CASING

☐ CHANGE OF PLANS ☐ RECOMPLETE

☐ CONVERT TO INJECTION ☐ REPERFORATE

☐ FRACTURE TREAT OR ACIDIZE ☐ VENT OR FLARE

☐ OTHER \_\_\_\_\_

DATE WORK COMPLETED \_\_\_\_\_

Report results of Multiple Completion and Completions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

\*Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depth for all markers and zones pertinent to this work.)

Newfield Production requests the following changes be made the drilling program on the above mentioned approved APD.

Surface Casing will be set @ 290'.

**COPY SENT TO OPERATOR**Date: 3.19.2008Initials: KS13. NAME & SIGNATURE: Mandie Crozier TITLE Regulatory SpecialistDATE 3/7/2008

(This space for State use only)

**APPROVED BY THE STATE**  
**OF UTAH DIVISION OF**  
**OIL, GAS, AND MINING**  
DATE: 3/14/08  
BY: [Signature]

**RECEIVED**  
**MAR 12 2008**  
**DIV. OF OIL, GAS & MINING**

## DIVISION OF OIL, GAS AND MINING

### ***SPUDDING INFORMATION***

Name of Company: NEWFIELD PRODUCTION COMPANY

Well Name: STATE 16-16-9-16

Api No: 43-013-33854 Lease Type: STATE

Section 16 Township 09S Range 16E County DUCHESNE

Drilling Contractor NDSI RIG # NS#1

### **SPUDDED:**

Date 04/30/08

Time 11:30 AM

How DRY

***Drilling will Commence:*** \_\_\_\_\_

Reported by BANDON HALL

Telephone # (435) 828-6160

Date 04/30/08 Signed CHD

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ENTITY ACTION FORM - FORM 6

OPERATOR: **NEWFIELD PRODUCTION COMPANY**  
ADDRESS: **RT. 3 BOX 3630**  
**MYTON, UT 84052**

OPERATOR ACCT. NO. **N2695**

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION				COUNTY	SPUD DATE	EFFECTIVE DATE
					Q3	SC	TP	RG			
A	99999	16842	4304736244	FEDERAL 6-30-8-18	SE	30	8S	18E	UINTAH	4/30/2008	5/8/08
WELL 1 COMMENTS: <i>GRRV</i>											
A	99999	16843	4301333854	STATE 16-16-9-16	SESE	16	9S	16E	DUCHESNE	4/30/2008	5/8/08
<i>GRRV</i>											
A	99999	16844	4301333234	FEDERAL 15-20-9-17	SWSE	20	9S	17E	DUCHESNE	5/1/2008	5/8/08
<i>GRRV</i>											
B	99999	14844	4304734287	SUNDANCE FED 14-31-8-18	<i>NESW</i> SESW	31	8S	18E	UINTAH	5/3/2008	5/8/08
<i>GRRV</i> <i>BHL = SESW</i>											
A	99999	16845	4301333233	FEDERAL 14-20-9-17	SESW	20	9S	17E	DUCHESNE	5/8/2008	5/8/08
WELL 6 COMMENTS: <i>GRRV</i>											
A	99999	16846	4304739634	UTE TRIBAL 7-23-4-1	SWNE	23	4S	1W	DUCHESNE <i>UINTAH</i>	5/2/2008	5/8/08
WELL 5 COMMENTS: <i>GRRV</i>											

ACTION CODES (See instructions on back of form)

- A - new entity for new well (single well only)
- B - well is existing entity (group or unit well)
- C - from one existing entity to another existing entity
- D - well from one existing entity to a new entity
- E - other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

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MAY 08 2008

DIV. OF OIL, GAS & MINING

Signature  
Production Clerk

Jenri Park

05/08/08

Date

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NUMBER: UTAH STATE ML-16532
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER 435.646.3721		8. WELL NAME and NUMBER: STATE 16-16-9-16
4. LOCATION OF WELL: FOOTAGES AT SURFACE: 658 FSL 664 FEL		9. API NUMBER: 4301333854
OTR/OTR. SECTION. TOWNSHIP RANGE. MERIDIAN: SESE, 16, T9S, R16E		10. FIELD AND POOL, OR WILDCAT: MONUMENT BUTTE
		COUNTY: DUCHESNE
		STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will  	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion:  05/07/2008	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Spud Notice
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 4/30/08 MIRU Ross #24. Spud well @ 11:30AM. Drill 320' of 12 1/4" hole with air mist. TIH w/ 7 jt's 85/8" j-55 24# csgn. set @ 315.64KB On 5/7/08 cement with 160 sks of class "G" w/ 3% CaCL2 + 1/4# sk Cello-Flake mixed @ 15.8 ppg > 1.17 cf/sk yeild. Returned 3 bbls cement to pit. Woc.

NAME (PLEASE PRINT) Jay Burton

TITLE Drilling Foreman

SIGNATURE

*Jay E. Burton*

DATE 05/07/2008

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DIV. OF OIL, GAS & MINING



## NEWFIELD PRODUCTION COMPANY - CASING &amp; CEMENT REPORT

8 5/8 CASING SET AT 315.64

LAST CASING 8 5/8" SET AT 312.81'  
 DATUM 12' KB  
 DATUM TO CUT OFF CASING \_\_\_\_\_  
 DATUM TO BRADENHEAD FLANGE \_\_\_\_\_  
 TD DRILLER 320 LOGGER \_\_\_\_\_  
 HOLE SIZE 12 1/4

OPERATOR NewField Production Company  
 WELL State16-16-9-16  
 FIELD/PROSPECT Monument Butte  
 CONTRACTOR & RIG # NS # 1

## LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		Shoe Joint 44.68'					
		WHI - 92 csg head			8rd	A	0.95
7	8 5/8"	Maverick ST&C csg	24#	J-55	8rd	A	307.49
		GUIDE shoe			8rd	A	0.9
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING			305.64
TOTAL LENGTH OF STRING		305.64	7	LESS CUT OFF PIECE			2
LESS NON CSG. ITEMS		1.85		PLUS DATUM TO T/CUT OFF CSG			12
PLUS FULL JTS. LEFT OUT		0		CASING SET DEPTH			315.64
TOTAL		307.49	7	} COMPARE			
TOTAL CSG. DEL. (W/O THRDS)		300.96	7				
TIMING		1ST STAGE					
BEGIN RUN CSG. Spud				GOOD CIRC THRU JOB			yes
CSG. IN HOLE				Bbls CMT CIRC TO SURFACE			3
BEGIN CIRC		7:48 AM		RECIPROCATED PIPE FOR			THRU FT STROKE
BEGIN PUMP CMT		8:00 AM					
BEGIN DSPL. CMT		8:10 AM		BUMPED PLUG TO			468 PSI
PLUG DOWN		8:17 AM					
CEMENT USED		160 sks	CEMENT COMPANY- B. J.				
STAGE	# SX	CEMENT TYPE & ADDITIVES					
1	160	Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield					
CENTRALIZER & SCRATCHER PLACEMENT			SHOW MAKE & SPACING				
Centralizers - Middle first, top second & third for 3							

COMPANY REPRESENTATIVE Jay BurtonDATE 5/7/2008

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:  
UTAH STATE ML-16532

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL:

OIL WELL ☒

GAS WELL ☐

OTHER

8. WELL NAME and NUMBER:

STATE 16-16-9-16

2. NAME OF OPERATOR:

NEWFIELD PRODUCTION COMPANY

9. API NUMBER:

4301333854

3. ADDRESS OF OPERATOR:

Route 3 Box 3630

CITY Myton

STATE UT

ZIP 84052

PHONE NUMBER

435.646.3721

10. FIELD AND POOL, OR WILDCAT:

MONUMENT BUTTE

4. LOCATION OF WELL:

FOOTAGES AT SURFACE: 658 FSL 664 FEL

COUNTY: DUCHESNE

OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SESE, 16, T9S, R16E

STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will  _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON	
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion:  05/25/2008	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Weekly Status Report	
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION		

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 5/20/08 MIRU Patterson # 52. Set all equipment. Pressure test Kelly, TIW, Choke manifold, & Bop's to 2,000 psi. Test 8.625 csgn to 1,500 psi. Vernal BLM field, & Roosevelt DOGM office was notified of test. PU BHA and tag cement @ 270'. Drill out cement & shoe. Drill a 7.875 hole with fresh water to a depth of 5740'. Lay down drill string & BHA. Open hole log w/ Dig/SP/GR log's TD to surface. PU & TIH with Guide shoe, shoe jt, float collar, 136 jt's of 5.5 J-55, 15.5# csgn. Set @ 5732.42' KB. Cement with 275 sks cement mixed @ 11.0 ppg & 3.43 yld. The 400 sks cement mixed @ 14.4 ppg & 1.24 yld. Returned 0 bbls of cement to reserve pit. Nipple down Bop's. Drop slips @ 80,000 #'s tension. Release rig @ 6:00am on 5/25/08.

NAME (PLEASE PRINT) Jay Burton

TITLE Drilling Foreman

SIGNATURE

*Jay E. Burton*

DATE 05/25/2008

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MAY 30 2008

DIV. OF OIL, GAS & MINING

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

5 1/2" CASING SET AT 5732.42

Flt cllr @ 5686.17

LAST CASING 8 5/8" SET # 312.81

OPERATOR Newfield Production Company

DATUM 12' KB

WELL State 16-16-9-16

DATUM TO CUT OFF CASING 12'

FIELD/PROSPECT Monument Butte

DATUM TO BRADENHEAD FLANGE \_\_\_\_\_

CONTRACTOR & RIG # Patterson #52

TD DRILLER 5740' Loggers

HOLE SIZE 7 7/8"

## LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		Landing Jt					14
		Short jt 3806' (6.42)					
134	5 1/2"	ETC LT & C casing	15.5#	J-55	8rd	A	5672.17
		Float collar					0.6
1	5 1/2"	ETC LT&C csg	15.5#	J-55	8rd	A	47
		GUIDE shoe			8rd	A	0.65
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING			5734.42
TOTAL LENGTH OF STRING		5734.42	135	LESS CUT OFF PIECE			14
LESS NON CSG. ITEMS		15.25		PLUS DATUM TO T/CUT OFF CSG			12
PLUS FULL JTS. LEFT OUT		175.15	4	CASING SET DEPTH			5732.42
TOTAL		5894.32	141	} COMPARE			
TOTAL CSG. DEL. (W/O THRDS)		5894.32	141				
TIMING		1ST STAGE	2nd STAGE				
BEGIN RUN CSG.		8:30pm		GOOD CIRC THRU JOB yes			
CSG. IN HOLE		11:30pm		Bbls CMT CIRC TO SURFACE 43			
BEGIN CIRC		12:00am		RECIPROCATED PIPE FOR THRUSTROKE NA			
BEGIN PUMP CMT		1:25am		DID BACK PRES. VALVE HOLD ? no left 1619 psi on pipe			
BEGIN DSPL. CMT		2:10am		BUMPED PLUG TO 2141 PSI			
PLUG DOWN		2:32am					
CEMENT USED		CEMENT COMPANY- B. J.					
STAGE	# SX	CEMENT TYPE & ADDITIVES					
1	275	Premlite II w/ 10% gel + 3 % KCL, 3#s /sk CSE + 2# sk/kolseal + 1/2#s/sk Cello Flake					
		mixed @ 11.0 ppg W / 3.43 cf/sk yield					
2	400	50/50 poz W/ 2% Gel + 3% KCL, .5%EC1, 1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD					
CENTRALIZER & SCRATCHER PLACEMENT			SHOW MAKE & SPACING				
Centralizers - Middle first, top second & third. Then every third collar for a total of 20.							

COMPANY REPRESENTATIVE

Jay Burton

DATE 5/25/2008

## STATE OF UTAH

## DIVISION OF OIL, GAS, AND MINING

1. **SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use "APPLICATION FOR PERMIT TO DRILL OR DEEPEN" form for such proposals.

OIL ☐ GAS ☐  
WELL ☐ WELL ☒ OTHER ☐2. NAME OF OPERATOR  
**NEWFIELD PRODUCTION COMPANY**3. ADDRESS AND TELEPHONE NUMBER  
**Rt. 3 Box 3630, Myton Utah 84052  
435-646-3721**4. LOCATION OF WELL  
  
Footages **658 FSL 664 FEL**  
  
QQ, SEC, T, R, M: **SE/SE Section 16, T9S R16E**5. LEASE DESIGNATION AND SERIAL NO.  
**ML-16532**6. IF INDIAN, ALLOTTEE OR TRIBAL NAME  
**N/A**7. UNIT AGREEMENT NAME  
**NA**8. WELL NAME and NUMBER  
**STATE 16-16-9-16**9. API NUMBER  
**43-013-33854**10. FIELD AND POOL, OR WILDCAT  
**MONUMENT BUTTE**COUNTY **DUCHESNE**  
STATE **UTAH**11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

## NOTICE OF INTENT:

(Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> ABANDON                   | <input type="checkbox"/> NEW CONSTRUCTION     |
| <input type="checkbox"/> REPAIR CASING             | <input type="checkbox"/> PULL OR ALTER CASING |
| <input type="checkbox"/> CHANGE OF PLANS           | <input type="checkbox"/> RECOMPLETE           |
| <input type="checkbox"/> CONVERT TO INJECTION      | <input type="checkbox"/> REPERFORATE          |
| <input type="checkbox"/> FRACTURE TREAT OR ACIDIZE | <input type="checkbox"/> VENT OR FLARE        |
| <input type="checkbox"/> MULTIPLE COMPLETION       | <input type="checkbox"/> WATER SHUT OFF       |
| <input type="checkbox"/> OTHER _____               |   |

## SUBSEQUENT REPORT OF:

(Submit Original Form Only)

- |   |   |
|---|---|
| <input type="checkbox"/> ABANDON*                   | <input type="checkbox"/> NEW CONSTRUCTION     |
| <input type="checkbox"/> REPAIR CASING              | <input type="checkbox"/> PULL OR ALTER CASING |
| <input checked="" type="checkbox"/> CHANGE OF PLANS | <input type="checkbox"/> RECOMPLETE           |
| <input type="checkbox"/> CONVERT TO INJECTION       | <input type="checkbox"/> REPERFORATE          |
| <input type="checkbox"/> FRACTURE TREAT OR ACIDIZE  | <input type="checkbox"/> VENT OR FLARE        |
| <input type="checkbox"/> OTHER _____                |   |

## DATE WORK COMPLETED \_\_\_\_\_

Report results of Multiple Completion and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

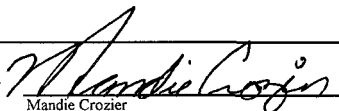
\*Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depth for all markers and zones pertinent to this work.

As per a conversation with Helen Sadik MacDonald approval was given to go ahead and set the planned 290' of surface casing that is normally set on wells drilled within the Monument Butte field by Newfield Production. Subsequently 316' of surface casing was set on the above mentioned well.

13.

NAME &amp; SIGNATURE:

  
Mandie Crozier

TITLE

Regulatory Specialist

DATE

7/21/2008

(This space for State use only)

**RECEIVED**  
**JUL 25 2008**

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:

UTAH STATE ML-16532

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL:

OIL WELL ☒

GAS WELL ☐

OTHER

2. NAME OF OPERATOR:

NEWFIELD PRODUCTION COMPANY

3. ADDRESS OF OPERATOR:

Route 3 Box 3630

CITY Myton

STATE UT

ZIP 84052

PHONE NUMBER

435.646.3721

4. LOCATION OF WELL:

FOOTAGES AT SURFACE: 658 FSL 664 FEL

8. WELL NAME and NUMBER:

STATE 16-16-9-16

9. API NUMBER:

4301333854

10. FIELD AND POOL, OR WILDCAT:

MONUMENT BUTTE

COUNTY: DUCHESNE

OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SESE, 16, T9S, R16E

STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☐ NOTICE OF INTENT  
(Submit in Duplicate)

Approximate date work will

☒ SUBSEQUENT REPORT  
(Submit Original Form Only)

Date of Work Completion:

07/15/2008

☐ ACIDIZE

☐ ALTER CASING

☐ CASING REPAIR

☐ CHANGE TO PREVIOUS PLANS

☐ CHANGE TUBING

☐ CHANGE WELL NAME

☐ CHANGE WELL STATUS

☐ COMMINGLE PRODUCING FORMATIONS

☐ CONVERT WELL TYPE

☐ DEEPEN

☐ FRACTURE TREAT

☐ NEW CONSTRUCTION

☐ OPERATOR CHANGE

☐ PLUG AND ABANDON

☐ PLUG BACK

☐ PRODUCTION (START/STOP)

☐ RECLAMATION OF WELL SITE

☐ RECOMPLETE - DIFFERENT FORMATION

☐ REPERFORATE CURRENT FORMATION

☐ SIDETRACK TO REPAIR WELL

☐ TEMPORARILY ABANDON

☐ TUBING REPAIR

☐ VENT OR FLAIR

☐ WATER DISPOSAL

☐ WATER SHUT-OFF

☒ OTHER: - Weekly Status Report

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The above subject well was completed on 06-23-08, attached is a daily completion status report.

NAME (PLEASE PRINT) Jentri Park

TITLE Production Clerk

SIGNATURE

DATE 07/15/2008

(This space for State use only)

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JUL 28 2008

DIV. OF OIL, GAS & MINING

**Daily Activity Report**

Format For Sundry

**STATE 16-16-9-16****4/1/2008 To 8/30/2008****6/12/2008 Day: 1****Completion**

Rigless on 6/11/2008 - Install 5M frac head. NU 6" 5M Cameron BOP. RU H/O truck & pressure test casing, blind rams, frac head & casing valves to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD @ 5630' & cement top @ 140'. Perforate stage #1. CP1 sds @ 5466-92' w/ 3 1/8" slick guns (19 gram, .49" HE, 120°, 21.92" pen, EXP-3319-331 Titan) w/ 4 spf for total of 104 shots. 135 BWTR. SIFN.

**6/17/2008 Day: 2****Completion**

Rigless on 6/16/2008 - RU BJ Services "Ram Head" frac flange. RU BJ & frac CP1 sds, stage #1 down casing w/ 56,437#'s of 20/40 sand in 509 bbls of Lightning 17 frac fluid. Open well w/ 0 psi on casing. Perfs broke down @ 2383 psi (took 5 bbls to load hole). Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 1203 w/ ave rate of 23.5 bpm w/ 8 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. 644 bbls EWTR. ISIP was 1603. Leave pressure on well. RU Lone Wolf WLT, crane & lubricator. RIH w/ Weatherford 5-1/2" (6K) composite flow through frac plug & 10' perf gun. Set plug @ 5060'. Perforate A.5 sds @ 4956-66' w/ 3-1/8" Slick Guns (23 gram, .43" HE, 90°) w/ 4 spf for total of 40 shots. RU BJ & frac stage #2 w/ 47,866#'s of 20/40 sand in 458 bbls of Lightning 17 frac fluid. Open well w/ 445 psi on casing. Perfs broke down @ 780 psi. Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 2113 w/ ave rate of 23.3 bpm w/ 8 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. 1102 bbls EWTR. ISIP was 2460. Leave pressure on well. RU WLT. RIH w/ frac plug & 9' perf gun. Set plug @ 4890'. Perforate B.5 sds @ 4806-15' w/ 4 spf for total of 36 shots. RU BJ & perfs won't break down. RIH & spot 10 gals of 15% HCL acid on perfs. RU BJ & frac stage #3 w/ 19,736#'s of 20/40 sand in 307 bbls of Lightning 17 frac fluid. Open well w/ 1060 psi on casing. Perfs broke down @ 1709 psi. Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 1699 w/ ave rate of 23.2 bpm w/ 6 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. 1409 bbls EWTR. ISIP was 1822. Leave pressure on well. RU WLT. RIH w/ frac plug & 8' perf gun. Set plug @ 4710'. Perforate D1 sds @ 4612-20' w/ 4 spf for total of 32 shots. RU BJ & frac stage #4 w/ 16,608#'s of 20/40 sand in 290 bbls of Lightning 17 frac fluid. Open well w/ 1440 psi on casing. Perfs broke down @ 2600 psi. Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 1953 w/ ave rate of 23.4 bpm w/ 6 ppg of sand. 1699 bbls EWTR. ISIP was 1888. RD BJ & WLT. Flow well back. Well flowed for 4 hours & died w/ 300 bbls rec'd. SIFN.

**6/19/2008 Day: 3****Completion**

Leed #731 on 6/18/2008 - MIRU Leed #731. No pressure on well. ND Cameron BOP & 5M frac head. Install 3M production tbg head & NU Weatherford Schaeffer BOP. Talley, drift, PU & TIH W/ new Weatherford 4 3/4" "Hurricane" bit, bit sub & new 2 7/8 8rd 6.5# J-55 tbg. Tag fill @ 4615'. Tbg displaced 11 BW on TIH. LD 2 jts & RU power swivel. SIFN W/ est 1388 BWTR.

**6/20/2008 Day: 4****Completion**

Leed #731 on 6/19/2008 - C/O sd & drill out composite bridge plugs as follows

(using conventional circulation): sd @ 4615', plug @ 4710' in 5 minutes; no sd, plug @ 4890'; sd @ 5048', plug @ 5060'. Hang back swivel & con't PU tbg. Tag fill @ 5310'. PU swivel. Drill plug remains & sd to PBTD @ 5684'. Circ hole clean W/ no fluid loss. RD swivel. Pull EOT to 5592'. RU swab equipment. IFL @ sfc. Made 5 swb runs rec 80 BTF W/ light gas, sm tr oil & sm tr sd. FFL @ 1000'. SIFN W/ est 1308 BWTR.

**6/21/2008 Day: 5**

**Completion**

Leed #731 on 6/20/2008 - Bleed sm amt gas f/ tbg. Resume swabbing well for sand cleanup. IFL @ 900'. Made 8 swb runs rec 72 BTF W/ light gas, tr oil & light tr sd. FFL @ 1800'. TIH W/ tbg f/ 5592'. Tag sd @ 5680' (4' new fill). C/O sd to PBTD @ 5684'. Circ hole clean. Lost est 45 BW & rec tr oil. LD excess tbg. TOH W/ tbg--LD bit. TIH W/ BHA & production tbg as follows: 2 7/8 NC, 2 jts tbg, SN, 2 jts tbg, new CDI 5 1/2" TA (45K) & 173 jts 2 7/8 8rd 6.5# J-55 tbg. ND BOP. Set TA @ 5435' W/ SN @ 5500' & EOT @ 5565'. Land tbg W/ 16,000# tension. NU wellhead. RU & flush tbg W/ 60- BW (returned same amt). PU & TIH W/ pump and "A" grade rod string to 2025'. PU polished rod & SIFN. Est 1281 BWTR.

**6/24/2008 Day: 6**

**Completion**

Leed #731 on 6/23/2008 - Con't PU & TIH W/ pump and rod sdtring f/ 2025' (complete as follows): New CDI 2 1/2" X 1 1/2" X 14' RHAC pump, 6-1 1/2" weight rods, 20-3/4" scraped rods, 94-3/4" plain rods, 99-3/4" scraped rods, 1-6' & 1-2' X 3/4" pony rods and 1 1/2" X 26' polished rod. Seat pump & RU pumping unit. Fill tbg W/ 2 BW. Pressure test tbg to 200 psi. Stroke pump up W/ unit to 800 psi. Good pump action. RDMOSU. Est 1283 BWTR. Place well on production @ 2:00 PM 6/23/2008 W/ 72" SL @ 4 SPM. FINAL REPORT!!!

**Pertinent Files: Go to File List**



(See other instructions on reverse side)

OMB NO. 1004-0137

Expires: February 28, 1995

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

## 1a. TYPE OF WORK

OIL  
WELLGAS  
WELL

DRY



Other

## 1b. TYPE OF WELL

NEW  
WELLWORK  
OVER

DEEPEN

PLUG  
BACKDIFF  
RESVR.

Other

## 2. NAME OF OPERATOR

Newfield Exploration Company

## 3. ADDRESS AND TELEPHONE NO.

1401 17th St. Suite 1000 Denver, CO 80202

## 4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.)\*

At Surface

658' FSL &amp; 664' FEL (SE/SE) Sec. 16, T9S, R16E

At top prod. Interval reported below

At total depth

## 14. API NO.

43-013-33854

## DATE ISSUED

01/24/08

## 12. COUNTY OR PARISH

Duchesne

## 13. STATE

UT

## 15. DATE SPUDDED

05/03/08

## 16. DATE T.D. REACHED

05/24/08

## 17. DATE COMPL. (Ready to prod.)

06/23/08

## 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*

5879'GL

## 19. ELEV. CASINGHEAD

5891'KB

## 20. TOTAL DEPTH, MD &amp; TVD

5740'

## 21. PLUG BACK T.D., MD &amp; TVD

5684'

## 22. IF MULTIPLE COMPL.,

HOW MANY\*

## 23. INTERVALS

DRILLED BY

-----&gt;

## ROTARY TOOLS

X

## CABLE TOOLS

## 24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)\*

Green River 4612'-5492'

25. WAS DIRECTIONAL  
SURVEY MADE

No

## 26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Induction Guard, SP, Compensated Density, Compensated Neutron, GR, Caliper, Cement Bond Log

## 27. WAS WELL CORED

No

## 23. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8" - J-55	24#	316'	12-1/4"	To surface with 160 sx Class "G" cmt	
5-1/2" - J-55	15.5#	5732'	7-7/8"	275 sx Premlite II and 400 sx 50/50 Poz	

## 29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	EOT @	TA @
						5565'	5435'

## 31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	SPF/NUMBER	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
(CP1) 5466'-92'	.49"	4/104	5466'-5492'	Frac w/ 56,437# 20/40 sand in 509 bbls fluid
(A.5) 4956'-66'	.43"	4/40	4956'-4966'	Frac w/ 47,866# 20/40 sand in 458 bbls fluid
(B.5) 4806'-4815'	.43"	4/36	4806'-4815'	Frac w/ 19,736# 20/40 sand in 307 bbls fluid
(D1) 4612'-20'	.43"	4/32	4612'-4620'	Frac w/ 16,608# 20/40 sand in 290 bbls fluid

## 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

## 33.\*

## PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)					WELL STATUS (Producing or shut-in)	
06-24-08		2-1/2" x 1-1/2" x 14' RHAC SM Plunger Pump					PRODUCING	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL--BBL.	GAS--MCF.	WATER--BBL.		GAS-OIL RATIO
07/16/08			----->	35	24	27		686
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL-BBL.	GAS--MCF.	WATER--BBL.		OIL GRAVITY (API COR.)	
		----->					RECEIVED	

## 34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Used for Fuel

TEST WITNESSED

AUG 04 2008

## 35. LIST OF ATTACHMENTS

DIV. OF OIL, GAS &amp; MINING

## 36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Jentri Park

TITLE

Production Tech

DATE

8/1/2008

JP

\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries);				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
			Well Name State 16-16-9-16	Garden Gulch Mkr	3571'	
				Garden Gulch 1	3785'	
				Garden Gulch 2	3896'	
				Point 3 Mkr	4135'	
				X Mkr	4409'	
				Y-Mkr	4442'	
				Douglas Creek Mkr	4562'	
				BiCarbonate Mkr	4794'	
				B Limestone Mkr	4894'	
				Castle Peak	5413'	
				Basal Carbonate	NP	
				Total Depth (LOGGERS	5759'	

# NEWFIELD



Well Name: State 16-16-9-16  
 LOCATION: S16, T9S, R16E  
 COUNTY/STATE: Duchesne  
 API: 43-013-33854

Spud Date: 5-3-08  
 TD: 5740'  
 CSG: 5-24-08  
 POP: 6-23-08

DATE	HRS	Oil (bbls)	Water (bbls)	Recovered Water (bbls)	Gas (mcf)	Casing Pressure (psi)	SPM	Comments
6/23/2008				1283				POP @ 2:00 P.M. w/ 72" SL @ 4 SPM. 1283 Total water to recover.
6/24/2008	15	0	47	1236	0	0	6	
6/25/2008	24	0	80	1156	0	0	5	
6/26/2008	24	0	18	1138	0	10	5	
6/27/2008	24	10	15	1123	45	50	6	
6/28/2008	24	2	10	1113	31	60	6	lowered rods
6/29/2008	24	18	0	1113	39	50	6	
6/30/2008	24	20	10	1103	39	50	6	
7/1/2008	24	17	10	1093	45	50	5 1/2	
7/2/2008	24	18	13	1080	45	50	5 1/2	
7/3/2008	24	20	13	1067	31	40	5 1/2	
7/4/2008	24	15	12	1055	32	60	5	
7/5/2008	24	15	10	1045	32	50	5 1/2	
7/6/2008	16	8	7	1038	39	40	5 1/2	
7/7/2008	24	15	15	1023	31	60	5 1/2	
7/8/2008	24	20	13	1010	37	50	5 1/2	
7/9/2008	24	18	13	997	49	60	5 1/2	
7/10/2008	24	18	13	984	49	50	5 1/2	
7/11/2008	24	97	19	965	0	80	4 1/2	
7/12/2008	24	10	12	953	52	50	6	
7/13/2008	24	0	60	893	47	60	5 1/2	
7/14/2008	24	22	10	883	37	65	5 1/2	
7/15/2008	24	27	7	876	37	50	5	
7/16/2008	24	35	27	849	24	55	5 1/2	
7/17/2008	24	21	38	811	26	55	5 1/2	
7/18/2008	24	15	12	799	26	45	5 1/2	
7/19/2008	24	25	25	774	19	45	5	
7/20/2008	24	12	5	769	19	45	4	
7/21/2008	6	5	0	769	6	45		Down - bad pump.
7/22/2008	0	0	0	769	0	0	0	Down - bad pump.
7/23/2008	0	0	0	769	0	40	0	Down - stuck pump
7/24/2008				769				
		<b>483</b>	<b>514</b>		<b>837</b>			

31305

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-16532
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
1. TYPE OF WELL Oil Well		8. WELL NAME and NUMBER: STATE 16-16-9-16
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		9. API NUMBER: 43013338540000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630, Myton, UT, 84052		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
3. ADDRESS OF OPERATOR: Rt 3 Box 3630, Myton, UT, 84052		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0658 FSL 0664 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 16 Township: 09.0S Range: 16.0E Meridian: S		COUNTY: DUCHESNE
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <b>10/31/2013</b>	<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION  OTHER: <input type="text" value="Pipeline Installation"/>
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input type="checkbox"/> DRILLING REPORT Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

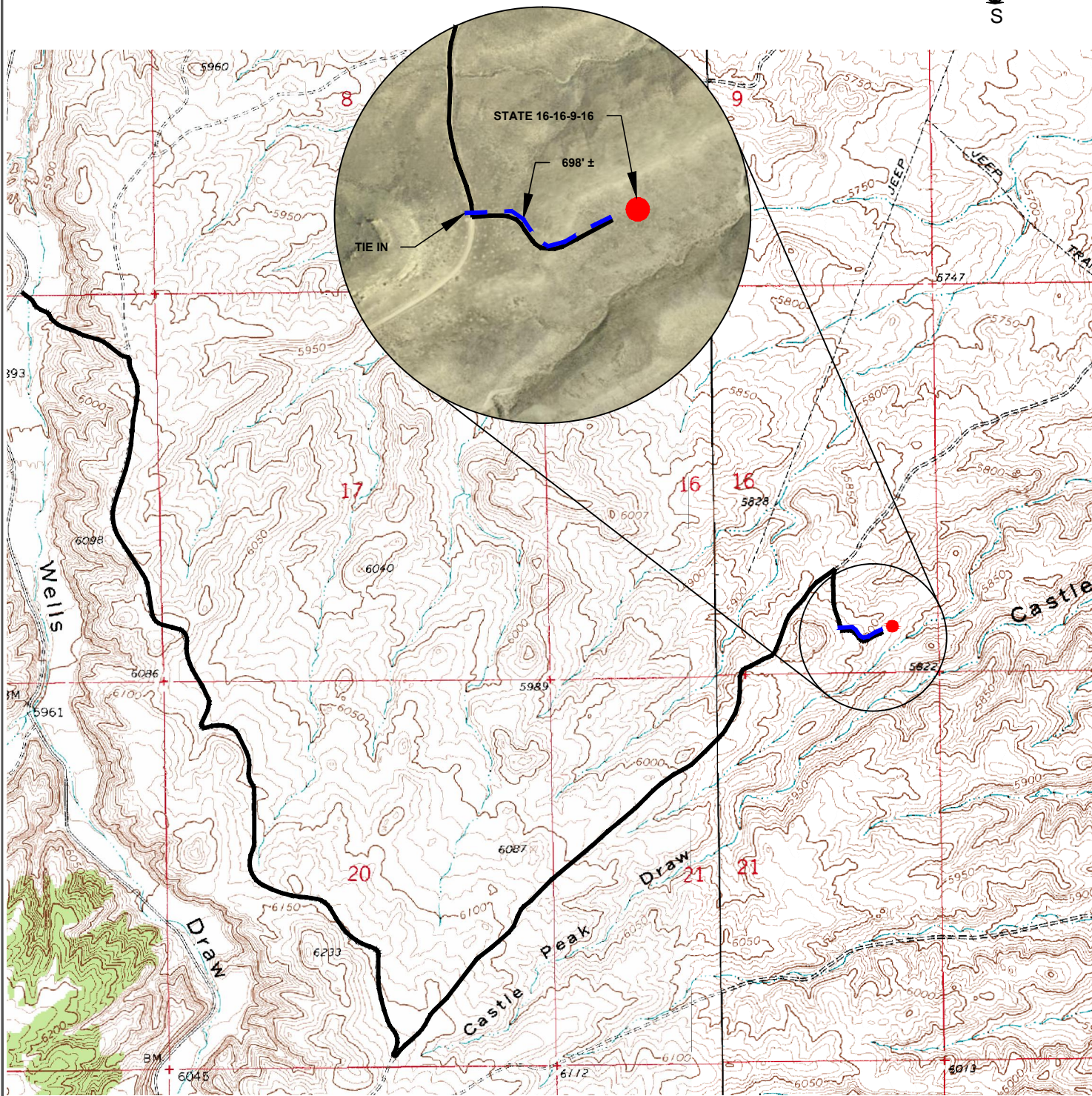
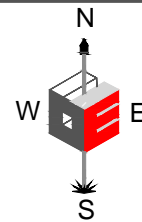
Newfield would like to install a buried 3" Flex-steel Pipe for purposes of Water Injection to the 16-16-9-16 totaling 699' feet in length. Reclamation activities would commence after construction activities were complete.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 October 16, 2013

NAME (PLEASE PRINT) Brian Foote	PHONE NUMBER 435 823-1972	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 10/8/2013



# PROPOSED PIPELINE MAP



## LEGEND



= EXISTING LOCATION



= EXISTING ROAD



= PROPOSED APPROXIMATE WATERLINE

**NEWFIELD**



STATE 16-16-9-16  
ON S.I.T.L.A. GROUND  
SEC. 16, T9S, R16E, S.L.B.&M.  
DUCESNE COUNTY, UT.

NO BOUNDARY SURVEY HAS BEEN PERFORMED BY OUTLAW ENGINEERING ON THE ABOVE PARCELS OF GROUND. OUTLAW DOES NOT WARRANT ANY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION.



**OUTLAW  
ENGINEERING INC.**

P.O. BOX 1800 ROOSEVELT,  
UTAH 84066  
(435) 232-4321

TOPOGRAPHIC  
MAP

DATE SURVEYED: JULY 17, 2013  
SURVEYED BY: DEK  
DRAWN: JULY 18, 2013  
SCALE: N.T.S.  
DRAWN: DEK

SHEET NO.

C

RECEIVED: Oct. 16, 2013



<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-16532
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630, Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> STATE 16-16-9-16
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0658 FSL 0664 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SESE Section: 16 Township: 09.0S Range: 16.0E Meridian: S		<b>9. API NUMBER:</b> 43013338540000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 9/2/2014	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input checked="" type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  The subject well has been converted from a producing oil well to an injection well on 08/29/2014. On 08/29/2014 Chris Jensen with the State of Utah DOGM was contacted concerning the initial MIT on the above listed well. On 09/02/2014 the casing was pressured up to 1598 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 100 psig during the test. There was a State representative available to witness the test - Chris Jensen.		
<b>NAME (PLEASE PRINT)</b> Lucy Chavez-Naupoto		<b>PHONE NUMBER</b> 435 646-4874
<b>SIGNATURE</b> N/A		<b>TITLE</b> Water Services Technician
<b>DATE</b> 9/8/2014		<b>Accepted by the Utah Division of Oil, Gas and Mining</b> <b>FOR RECORD ONLY</b> September 09, 2014

# Mechanical Integrity Test Casing or Annulus Pressure Test

Newfield Production Company

Rt. 3 Box 3630

Myton, UT 84052

435-646-3721

Witness: Mark Jensen Date 9.12.14 Time 10:30 ☒ am ☐ pm

Test Conducted by: Johnny D

Others Present: \_\_\_\_\_

Well: State 16-16-9-16

Field: GMBN

Well Location:

SE SE S16 9S 16E

API No: 43013-33854

<u>Time</u>	<u>Casing Pressure</u>	
0 min	<u>1597</u>	psig
5	<u>1597</u>	psig
10	<u>1597</u>	psig
15	<u>1597</u>	psig
20	<u>1597</u>	psig
25	<u>1597</u>	psig
30 min	<u>1598</u>	psig
35		psig
40		psig
45		psig
50		psig
55		psig
60 min		psig

Tubing pressure: 100 psig

Result: Pass Fail

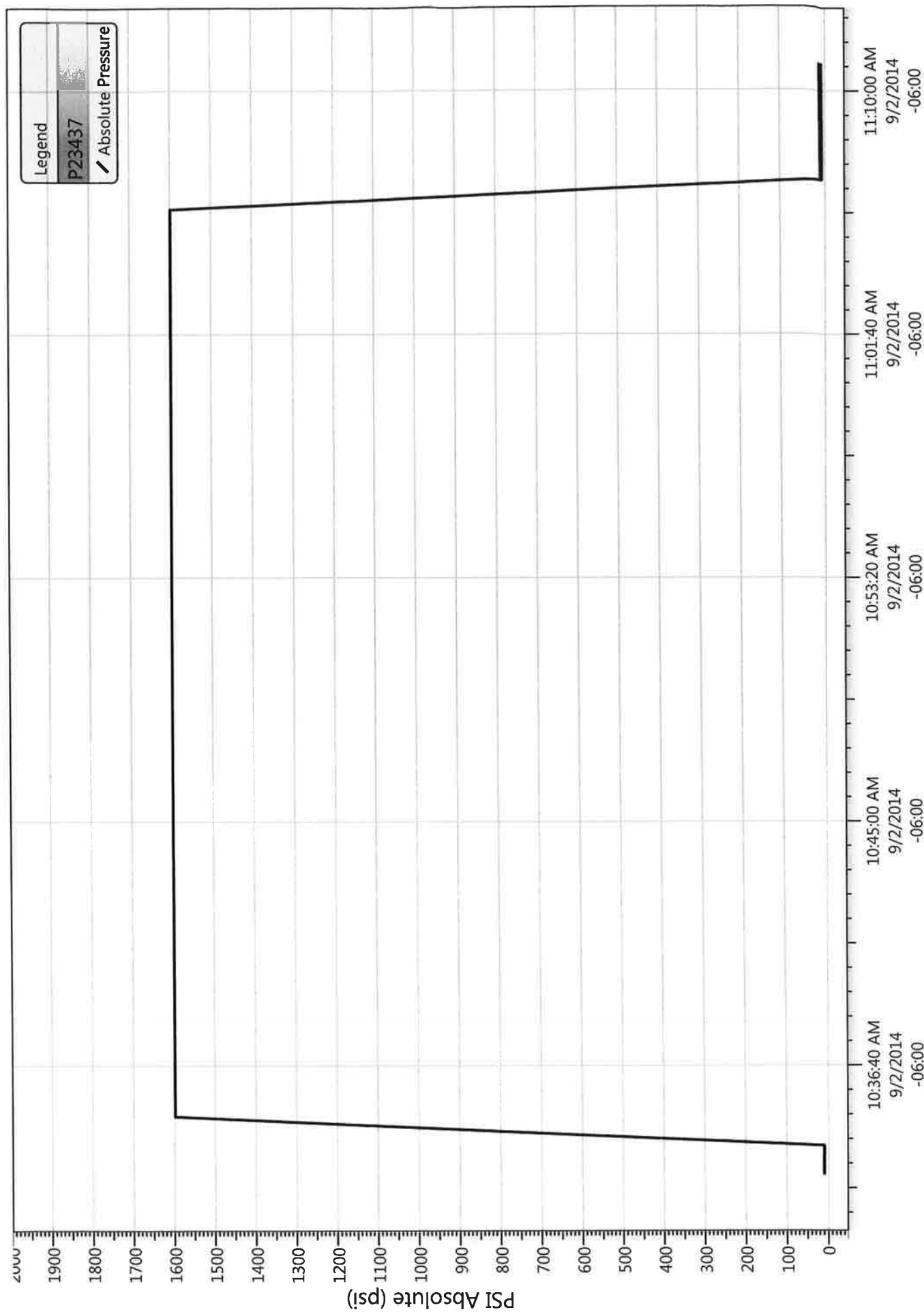
Signature of Witness:

Mark Jensen

Signature of Person Conducting Test:

Johnny D

State 16-16-9-16  
9/2/2014 10:32:37 AM







Well Name: State 16-16-9-16

## Job Detail Summary Report

Sundry Number: 55267 API Well Number: 43013338540000

Jobs		Job Start Date	Job End Date
Primary Job Type	Conversion	8/26/2014	9/2/2014

Daily Operations	
Report Start Date	Report End Date
8/26/2014	8/27/2014
24hr Activity Summary	
MIRUSU, RD pump unit. Hot oil well. Unseat pump. LD rods. RU BOP's. Release TA. TOOH w/ tbg breaking & doping.	
Start Time	End Time
00:00	07:00
Comment	
Well was shut in.	
Start Time	End Time
07:00	08:30
Comment	
Held safety meeting. MIRUSU.	
Start Time	End Time
08:30	13:30
Comment	
Circulated 60 bbls down casing (well is full). Unhang horses head. Unseat pump. Flush rods w/ 40 bbls water. Soft seat pump. Well won't Test tbg w/ 35 bbls. Fish rods. TOOH w/ 1-1/2" x 26' polish rod, 2-, 6', 8' x 3/4" pony rods, 98- 3/4" 4per guided, 43- 3/4" slick, 71- 3/4" 4per guided, 6- 1-1/2" K-Bars, 2-1/2" x 1-1/2" x 17' RTBC Mcgyver pump. Pumped 40 bbls circulating half way out.	
Start Time	End Time
13:30	17:30
Comment	
RD wellhead. Release TA. RU Schefer BOP's. TOOH w/ tbg breaking every other pin. Found split 1 jt above TA. LD 29 extra tbg.	
Start Time	End Time
17:30	00:00
Comment	
Shut well in for night.	
Report Start Date	Report End Date
8/27/2014	8/28/2014
24hr Activity Summary	
RU bit & scrpr. TIH w/ tbg. TOOH w/ tbg breaking & doping other pin on tbg. RU Perforators. Perforate well. TIH w/ tools.	
Start Time	End Time
00:00	07:00
Comment	
Well was shut in for night.	
Start Time	End Time
07:00	09:00
Comment	
Held safety meeting. Open well on lite vacuum. RU Bit & scraper. TIH w/ tbg. 148 its tbg to 4610'.	
Start Time	End Time
09:00	12:00
Comment	
Circulate 40 bbls water down tbg. TOOH w/ tbg breaking, doping & inspecting every other pin.	
Start Time	End Time
12:00	14:00
Comment	
RU WLT & lubricator. Test lubricator. RIH & perforate A3 sds w/ 3 spf, 3-1/8", porte guns w/ total of 24 shots. RD WLT.	
Start Time	End Time
14:00	17:00
Comment	
Set pipe rack. Unload L-80, 2-7/8" frac string. Make Up "TS" RBP, ON/OFF tool, 2-3/8" x 4' pup joint (1.99" ID), "HD" pkr. 2-7/8" SN. PU, tally, drift & TIH w/ frac string (165 jts).	
Start Time	End Time
17:00	18:00
Comment	
Set "TS" RBP @ 4571' (142 jts). Test casing to 1600 psi for 5 min. w/ 2 bbls. Release pkr. Continue TIH w/ tbg & set RBP @ 5080' (158 jts). Test tools to 2000 psi. Set pkr again @ 5010'. Break down A3 sds w/ 1 bbls @ 1500 psi back to 700 psi w/ 500 ISIP was. Takes wtr @ 900 psi @ 1.5 bpm.	
Start Time	End Time
18:00	00:00
Comment	
Shut well in for night.	
Report Start Date	Report End Date
8/28/2014	8/29/2014
24hr Activity Summary	
RU Nabors frac crew & frac well. Flow well back. Release tools. TOOH w/ tbg LD on racks. RIH w/ Injection BHA.	
Start Time	End Time
00:00	05:00
Comment	
Well was shut in for night.	
Start Time	End Time
05:00	08:00
Comment	
Held safety meeting. RU Nabors frac crew.	
Start Time	End Time
08:00	09:00
Comment	
Stage #1: A3 sds. Test lines to 7220 psi. Open well w/ 50 psi on casing. Broke @ 1156 psi back to 1156 psi. Spear head 6 bbls of 15% HCL (rec'd 900 psi drop when hit perfs). Treated @ ave pressure of 3647 @ ave rate of 18 bpm, max psi was 7638 w/ max rate of 20 bpm w/ 371 bbls of 17# Borate Xlink frac fluid in fresh wtr. Treated w/ 34,732#s of 20/40 white sand @ 6 ppa. Screened out w/ 34,732#s pumped w/ 6ppa on perfs (4100#s in tbg). Flow 120 bbls back.	
Start Time	End Time
09:00	10:30
Comment	
Open equalizer & released pkr. Circulate tbg clean. TIH w/ tbg to C/O 2' of sand. Release RBP @ 5080'.	



Well Name: State 16-16-9-16

## Job Detail Summary Report

Sundry Number: 55267 API Well Number: 43013338540000

Start Time	10:30	End Time	13:30	Comment
Start Time	13:30	End Time	15:30	TOOH w/ tbg LD L-80 on racks. Pmpd 50 bbls down casing to keep tbg clean while LD.
Start Time	15:30	End Time	17:00	RU 2-3/8" wireline entry guide, 2-3/8" XN nipple 1.87" ID, 4' x 2-3/8" pup jt, 5-1/2" x 2-7/8" Arrow set pkr, X nipple 1.87" ID, On/Off tool, 2-7/8" SN. TIH w/ 146 jts of used 2-7/8" J-55 tbg.
Start Time	17:00	End Time	00:00	Pump 10 bbls wtr. Drop STD valve. Pump 20 bbls to push to SN. Pressure tbg to 3000 psi. Test failed lost 300 psi in 10 min. Leave pressure on for night.
Report Start Date	8/29/2014	Report End Date	8/30/2014	Shut well in for night.
Start Time	00:00	End Time	07:00	Well was shut in for night.
Start Time	07:00	End Time	10:00	Held safety meeting. Open well w/ 2760 psi on tbg. Bump pressure back to 3000 & tested good for 1 hour. RU sand line & fish STD v/v.
Start Time	10:00	End Time	11:30	RD BOP's. Pump 65 bbls pkr fluid (took 5 bbls to fill csg). Set AS 1 pkr @ 4564' w/ CE @ 4564.04' & EOT @ 4574' w/ 15,000#'s tension.
Start Time	11:30	End Time	14:30	Pressure casing to 1500 psi in 1 time to get good test. RU Newfield Water Services & run MIT on casing. Test good.
Start Time	14:30	End Time	16:00	RDMOSU.
Start Time	16:00	End Time	00:00	Well shut in waiting on approval to inject.
Report Start Date	9/2/2014	Report End Date	9/2/2014	Conduct MIT
Start Time	10:40	End Time	11:10	On 08/29/2014 Chris Jensen with the State of Utah DOGM was contacted concerning the initial MIT on the above listed well. On 09/02/2014 the casing was pressured up to 1598 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 100 psig during the test. There was a State representative available to witness the test - Chris Jensen.

## NEWFIELD

## Schematic

Well Name: State 16-16-9-16

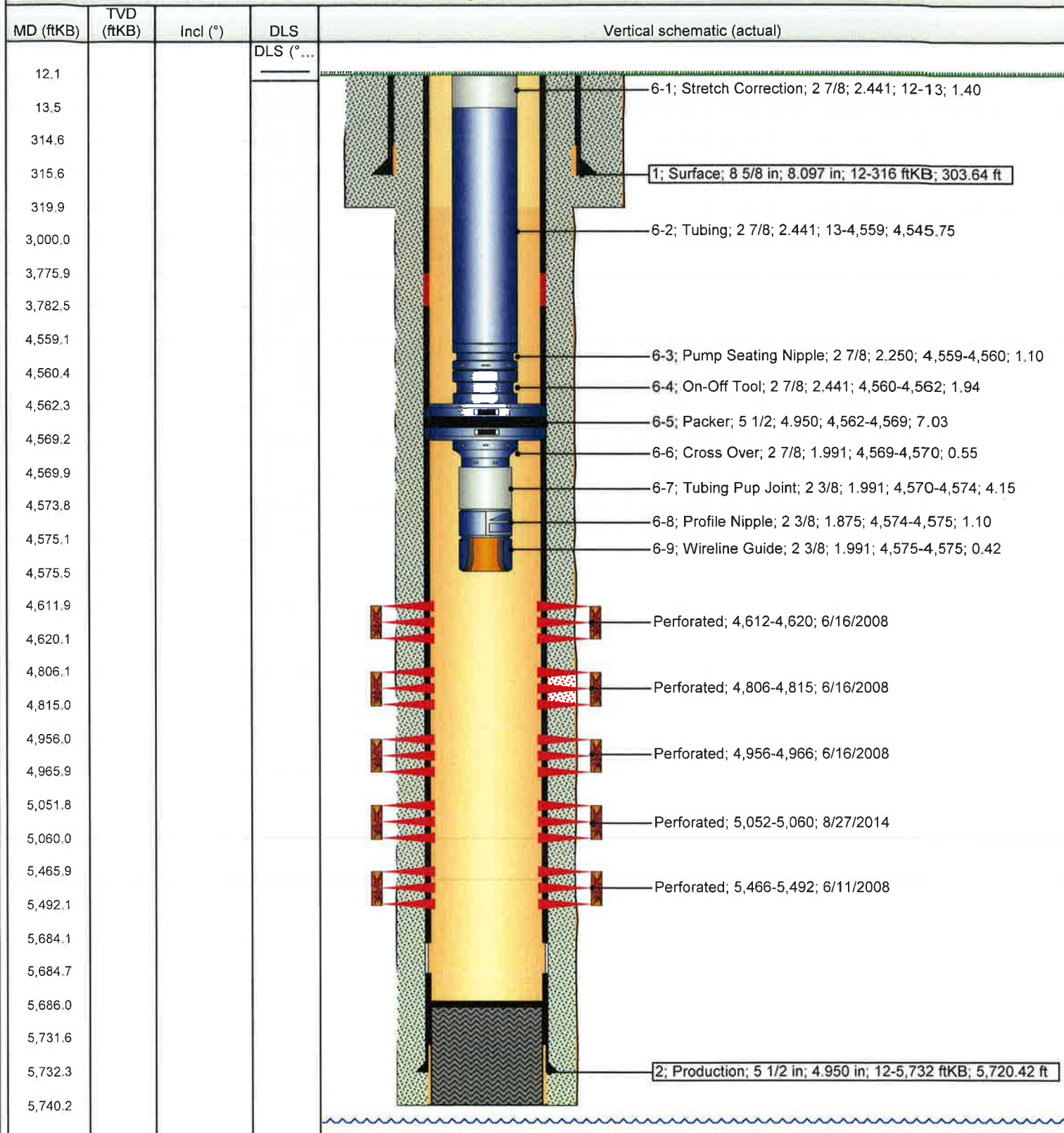
Surface Legal Location 16-9S-16E		API/UWI 43013338540000		Well RC 500200169	Lease	State/Province Utah	Field Name GMBU CTB5	County DUCHESNE
Spud Date 5/3/2008	Rig Release Date 5/25/2008	On Production Date 6/23/2008	Original KB Elevation (ft) 5,891	Ground Elevation (ft) 5,879	Total Depth All (TVD) (ftKB)		PBD (All) (ftKB) Original Hole - 5,686.2	

## Most Recent Job

Job Category Production / Workover	Primary Job Type Conversion	Secondary Job Type OAP	Job Start Date 8/26/2014	Job End Date 9/2/2014
---------------------------------------	--------------------------------	---------------------------	-----------------------------	--------------------------

TD: 5,740.0

Vertical - Original Hole, 9/8/2014 10:42:35 AM





**NEWFIELD****Newfield Wellbore Diagram Data  
State 16-16-9-16**

Surface Legal Location 16-9S-16E		API/UWI 43013338540000		Lease	
County DUCHESNE	State/Province Utah	Basin Uintah Basin		Field Name GMBU CTB5	
Well Start Date 4/30/2008		Spud Date 5/3/2008		Final Rig Release Date 5/25/2008	
On Production Date 6/23/2008		Original KB Elevation (ft) 5,891		Ground Elevation (ft) 5,879	
Total Depth (ftKB) 5,740.0		Total Depth All (TVD) (ftKB)		PBTD (All) (ftKB) Original Hole - 5,686.2	

**Casing Strings**

Csg Des	Run Date	OD (in)	ID (in)	Wt/Len (lb/ft)	Grade	Set Depth (ftKB)
Surface	5/4/2008	8 5/8	8.097	24.00	J-55	316
Production	5/24/2008	5 1/2	4.950	15.50	J-55	5,732

**Cement****String: Surface, 316ftKB 5/5/2008**

Cementing Company	Top Depth (ftKB) 12.0	Bottom Depth (ftKB) 320.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield	Fluid Type Displacement	Amount (sacks) 160	Class G	Estimated Top (ftKB) 12.0

**String: Production, 5,732ftKB 5/25/2008**

Cementing Company	Top Depth (ftKB) 12.0	Bottom Depth (ftKB) 3,000.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description Premilite II w/ 10% gel + 3 % KCL, 3#s /sk CSE + 2# sk/kolseal + 1/2#s/sk Cello Flake mixed @ 11.0 ppg W / 3.43 cf/sk yield	Fluid Type Lead	Amount (sacks) 275	Class PLII	Estimated Top (ftKB) 12.0

**String: Production, 5,732ftKB 5/25/2008**

Cementing Company	Top Depth (ftKB) 3,000.0	Bottom Depth (ftKB) 5,740.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description 50/50 poz W/ 2% Gel + 3% KCL, .5%EC1,1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD	Fluid Type Tail	Amount (sacks) 400	Class 50/50	Estimated Top (ftKB) 3,000.0

**Tubing Strings**

Tubing Description					Run Date		Set Depth (ftKB)	
Tubing					8/29/2014		4,575.4	
Item Des	Jts	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btm (ftKB)
Stretch Correction	1	2 7/8	2.441	6.50	J-55	1.40	12.0	13.4
Tubing	146	2 7/8	2.441	6.50	J-55	4,545.75	13.4	4,559.2
Pump Seating Nipple	1	2 7/8	2.250		N-80	1.10	4,559.2	4,560.3
On-Off Tool	1	2 7/8	2.441			1.94	4,560.3	4,562.2
Packer	1	5 1/2	4.950			7.03	4,562.2	4,569.2
Cross Over	1	2 7/8	1.991			0.55	4,569.2	4,569.8
Tubing Pup Joint	1	2 3/8	1.991	4.70	J-55	4.15	4,569.8	4,573.9
Profile Nipple	1	2 3/8	1.875		N-80	1.10	4,573.9	4,575.0
Wireline Guide	1	2 3/8	1.991			0.42	4,575.0	4,575.4

**Rod Strings**

Rod Description		Run Date			Set Depth (ftKB)		
Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btm (ftKB)

**Perforation Intervals**

Stage#	Zone	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Phasing (*)	Nom Hole Dia (in)	Date
4	D1, Original Hole	4,612	4,620	4			6/16/2008
3	B.5, Original Hole	4,806	4,815	4			6/16/2008
2	A.5, Original Hole	4,956	4,966	4	90	0.430	6/16/2008
5	A-3, Original Hole	5,052	5,060	3	120	0.340	8/27/2014
1	CP1, Original Hole	5,466	5,492	4	120	0.490	6/11/2008

**Stimulations & Treatments**

Stage#	ISIP (psi)	Frac Gradient (psi/ft)	Max Rate (bbl/min)	Max PSI (psi)	Total Clean Vol (bbl)	Total Slurry Vol (bbl)	Vol Recov (bbl)
1	1,603	0.73	23.6	1,479			
2	2,460	0.93	23.4	2,382			
3	1,822	0.81	23.4	2,125			
4	1,888	0.84	23.6	2,115			
5	0	0.0	20.0	7,638	371		

**NEWFIELD****Newfield Wellbore Diagram Data  
State 16-16-9-16**

Proppant		
Stage#	Total Prop Vol Pumped (lb)	Total Add Amount
1		Proppant White Sand 56347 lb
2		Proppant White Sand 47866 lb
3		Proppant White Sand 19736 lb
4		
5		Proppant White Sand 34732 lb

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-16532
<b>1. TYPE OF WELL</b> Water Injection Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630, Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> STATE 16-16-9-16
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0658 FSL 0664 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SESE Section: 16 Township: 09.0S Range: 16.0E Meridian: S		<b>9. API NUMBER:</b> 43013338540000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 12/18/2014	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input checked="" type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">           The above reference well was put on injection at 1:50 PM on 12/18/2014.         </div> <div style="width: 35%; text-align: right;"> <b>Accepted by the Utah Division of Oil, Gas and Mining</b>   <b>Date:</b> January 05, 2015  <b>By:</b> </div> </div>		
<b>NAME (PLEASE PRINT)</b> Lucy Chavez-Naupoto	<b>PHONE NUMBER</b> 435 646-4874	<b>TITLE</b> Water Services Technician
<b>SIGNATURE</b> N/A		<b>DATE</b> 12/23/2014



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

## UNDERGROUND INJECTION CONTROL PERMIT


Cause No. UIC-420

**Operator:** Newfield Production Company  
**Well:** State 16-16-9-16  
**Location:** Section 16, Township 9 South, Range 16 East  
**County:** Duchesne  
**API No.:** 43-013-33854  
**Well Type:** Enhanced Recovery (waterflood)

### Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on May 27, 2014.
2. Maximum Allowable Injection Pressure: 1,567 psig
3. Maximum Allowable Injection Rate: (restricted by pressure limitation)
4. Injection Interval: Green River Formation (3,950' – 5,684'). The injection top is limited by the cement top in the nearby Castle Peak State 33-16 well (43-013-30640).
5. Any subsequent wells drilled within a ½ mile radius of this well shall have production casing cement brought up to or above the top of the unitized interval for the Greater Monument Butte Unit.

Approved by:

  
John Rogers  
Associate Director

12-17-2014  
Date

JR/MLR/js

cc: Bruce Suchomel, Environmental Protection Agency  
Bureau of Land Management, Vernal  
SITLA  
Jill Loyle, Newfield Production Company, Denver  
Newfield Production Company, Myton  
Duchesne County  
Well File

N:\O&G Reviewed Docs\ChronFile\UIC\Newfield





GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

May 27, 2014

Newfield Production Company  
1001 Seventeenth Street, Suite 2000  
Denver, CO 80202

Subject: Greater Monument Butte Unit Well: State 16-16-9-16, Section 16, Township 9 South, Range 16 East, SLBM, Duchesne County, Utah, API Well # 43-013-33854

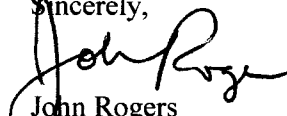
Newfield Production Company:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Newfield Production Company.
3. A casing\ tubing pressure test shall be conducted prior to commencing injection.
4. Pressure shall be monitored between the surface casing and the production casing on a regular basis. Any pressure changes observed shall be reported to the Division immediately.
5. The top of the injection interval shall be limited to a depth no higher than **3,950** feet in the State 16-16-9-16 well. The injection top is limited by the nearby Castle Peak State 33-16 well (43-013-30640).

A final approval to commence injection will be issued upon satisfactory completion of the listed stipulations. If you have any questions regarding this approval or the necessary requirements, please contact Mark Reinbold at 801-538-5333 or Brad Hill at 801-538-5315.

Sincerely,

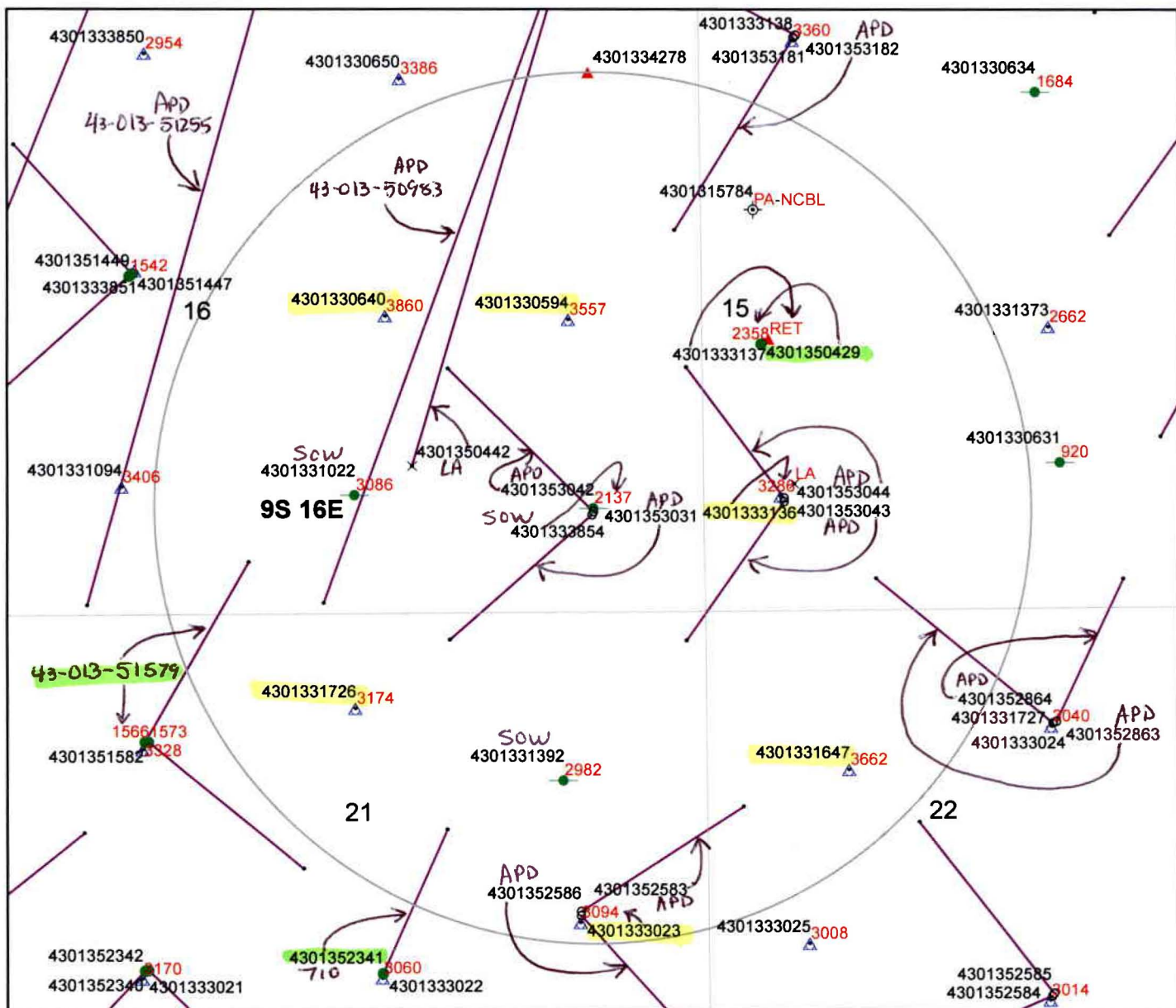
  
John Rogers  
Associate Director

JR/MLR/js

cc: Bruce Suchomel, Environmental Protection Agency  
Bureau of Land Management, Vernal  
SITLA  
Duchesne County  
Newfield Production Company, Myton  
Well File







### Legend

#### Oil & Gas Well Type

- APD-Approved Permit
- ⊙ DRL-Spudded (Drilling Commenced)
- ⚡ GIW-Gas Injection Well
- <sub>GS</sub> GSW-Gas Storage Well
- × LA-Location Abandoned
- LOC-New Location Well
- OPS-Drilling Operations Suspended
- ⊙ PA-Pugged & Abandoned
- ⚡ PGW-Producing Gas Well
- POW-Producing Oil Well
- ▲ RET-Returned APD
- ⚡ SGW-Shut-in Gas Well
- SOW-Shut-in Oil Well
- ⊗ TA-Temp Abandoned
- TW-Test Well
- ⚡ WDW-Water Disposal Well
- △ WIW-Water Injection Well
- WSW-Water Supply Well

### Cement Bond Tops

State 16-16-9-16

API #43-013-33854

UIC-420.3

(updated 12/16/2014)

0 0.05 0.1 0.2 0.3 0.4 Miles

N



- 4585 Depth to top of suitable cement bond
- Well Bottom Hole Location
- Oil & Gas Wells Hole Directional Path
- Wells-CbtlpsMaster 1-31-13
- DNR Oil Gas Wells Buffer
- County Boundaries
- PLSS Sections
- PLSS Townships

**DIVISION OF OIL, GAS AND MINING  
UNDERGROUND INJECTION CONTROL PROGRAM  
PERMIT  
STATEMENT OF BASIS**

**Applicant:** Newfield Production Company      **Well:** State 16-16-9-16

**Location:** 16/9S/16E      **API:** 43-013-33854

**Ownership Issues:** The proposed well is located on State of Utah land. The well is located in the Greater Monument Butte Unit. Lands in the one-half mile radius of the well are administered by the BLM and the State of Utah. The Federal Government and the State of Utah are the mineral owners within the area of review (AOR). Newfield and other various individuals hold the leases in the unit. Newfield has provided a list of all surface, mineral and lease holders in the half-mile radius. Newfield is the operator of the Greater Monument Butte Unit. Newfield has submitted an affidavit stating that all owners and interest owners have been notified of their intent.

**Well Integrity:** The proposed well has surface casing set at 316 feet and has a cement top at the surface. A 5½ inch production casing is set at 5,732 feet. The cement bond log is somewhat problematic but appears to demonstrate adequate bond in this well up to about 2,137 feet or higher. A 2 7/8 inch tubing with a packer will be set at 4,562 feet. Higher perforations may be opened at a later date. A mechanical integrity test will be run on the well prior to injection. At the time of this revision (12/16/2014), on the basis of surface locations, there is 1 producing well, 6 injection wells, 3 shut-in wells (including the proposed injection well), and 1 P/A well in the AOR. In addition, there are 2 directionally drilled producing wells with surface locations outside the AOR and bottom hole locations inside the AOR. There is 1 approved surface location outside the AOR from which a horizontal well will be drilled to a bottom hole location inside the AOR. Finally, there is 1 approved surface location inside the AOR for a directional well to a bottom hole outside the AOR and 2 approved surface locations outside the AOR for directional wells to bottom hole locations inside the AOR. All of the existing wells have evidence of adequate casing and cement for the proposed injection interval except the Castle Peak State 33-16 (API# 43-013-30640). Following a cement squeeze in this well, a new CBL was run (6/27/2013), indicating a good cement top at 3,860 feet. To protect this wellbore Newfield will not perforate the State 16-16 well above a depth of 3,950 feet (see next paragraph).

**Ground Water Protection:** As interpreted from the Utah Geological Survey's DOE Project-Uinta Basin Water Draft Map (Paul B. Anderson, December 2, 2011), the base of moderately saline water (3000-10,000 mg/l TDS) is at a depth of approximately 2700 feet. The requested injection interval is between 3,895 feet and 5,684 feet in the Green River Formation. However, the top of acceptable cement bond is at about 3,860 feet in the Castle Peak State 33-16 well (API # 43-013-30640), located within the AOR, approximately 0.3 mile northwest of the State 16-16-9-16 well. This cement top correlates to a depth of approximately 3,850 feet in the 16-16-9-16 well. For this reason, it is recommended that the top of the injection interval be permitted no higher than a depth of 3,950 feet in the 16-16-9-16 well. Information submitted by Newfield

indicates that the fracture gradient for the 16-16-9-16 well is 0.73 psi/ft., which was the lowest reported fracture gradient for the injection zone. The resulting minimum fracture pressure for the proposed injection interval is 1,567 psig. The requested maximum pressure is 1,567 psig. The anticipated average injection pressure is 1100 psig. Injection at this pressure should not initiate any new fractures or propagate existing fractures in the adjacent confining intervals. Any ground water present should be adequately protected.

**Oil/Gas& Other Mineral Resources Protection:** The Board of Oil, Gas & Mining approved the Greater Monument Butte Unit on December 1, 2009. Correlative rights issues were addressed at this time. Previous reviews in this area indicate that other mineral resources in the area have been protected or are not at issue.

**Bonding:** Bonded with the State of Utah

**Actions Taken and Further Approvals Needed:** A notice of agency action has been sent to the Salt Lake Tribune and the Uinta Basin Standard. A casing/tubing pressure test will be required prior to injection. It is recommended that approval of this application be granted.

Note: Applicable technical publications concerning water resources in the general vicinity of this project have been reviewed and taken into consideration during the permit review process.

Reviewer(s): Mark Reinbold Date: 5/6/2014 (revised 12/16/2014)

4770 S. 5600 W.  
P.O. BOX 704005  
WEST VALLEY CITY, UTAH 84170  
FED. TAX I.D.# 87-0217663  
801-204-6910

The Salt Lake Tribune

MEDIAONE

Deseret News

PROOF OF PUBLICATION

CUSTOMER'S COPY

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL-GAS & MINING, Rose Nolton 1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114	9001402352 RECEIVED APR 24 2014	4/17/2014

ACCOUNT NAME	
DIV OF OIL-GAS & MINING,	
TELEPHONE	ADORDER# / INVOICE
8015385340	0000952488 /
SCHEDULE	
Start 04/17/2014	End 04/17/2014
CUST. REF. NO.	
CAUSE NO. UIC-420	
CAPTION	
BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES	
SIZE	
73 Lines	2.00 COLUMNS
TIMES	RATE
3	
MISC. CHARGES	AD CHARGE
TOTAL COST	
250.28	

AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY COMPANY, LLC dba MEDIAONE OF UTAH LEGAL BOOKER, I CERTIFY THAT THE BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES CAUSE NO. UIC-420 IN THE MATTER OF THE APPLICATION FOR DIV OF OIL-GAS & MINING, WAS COMPANY, LLC dba MEDIAONE OF UTAH, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, IN ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINITELY. COMPLIES WITH UTAH DIGITAL SIGNATURE ACT UTAH CODE 46-2-101, 46-3-104.

PUBLISHED ON Start 04/17/2014 End 04/17/2014

SIGNATURE 

DATE 4/17/2014

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"  
PLEASE PAY FROM BILLING STATEMENT

BEFORE THE DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH  
NOTICE OF AGENCY ACTION  
CAUSE NO. UIC-420

IN THE MATTER OF THE APPLICATION OF NEWFIELD PRODUCTION COMPANY FOR ADMINISTRATIVE APPROVAL OF CERTAIN WELLS LOCATED IN SECTIONS 13, 16, 19, 21, AND 23, TOWNSHIP 9 SOUTH, RANGE 16 EAST, DUCHESNE COUNTY, UTAH, AS CLASS II INJECTION WELLS.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Newfield Production Company, 10001 17th Street, Suite 2000, Denver, Colorado 80202, telephone 303-893-0102, for administrative approval of the following wells located in Duchesne County, Utah, for conversion to Class II injection wells:

Greater Monument Butte Unit:  
Federal 10-13-9-16 well located in NW/4 SE/4, Section 13, Township 9 South, Range 16 East  
API 43-013-32653  
Federal 12-13-9-16 well located in NW/4 SW/4, Section 13, Township 9 South, Range 16 East  
API 43-013-32651  
State 16-16-9-16 well located in SE/4 SE/4, Section 16, Township 9 South, Range 16 East  
API 43-013-33854  
Federal 8-19-9-16 well located in SE/4 NE/4, Section 19, Township 9 South, Range 16 East  
API 43-013-33101  
Federal 16-21-9-16 well located in SE/4 SE/4, Section 21, Township 9 South, Range 16 East  
API 43-013-33165  
Federal 12-23-9-16 well located in NW/4 SW/4, Section 23, Township 9 South, Range 16 East  
API 43-013-33179

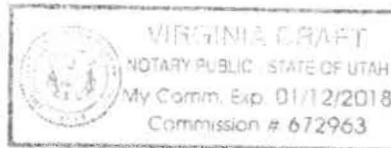
The proceeding will be conducted in accordance with Utah Admin. R649-10, Administrative Procedures.

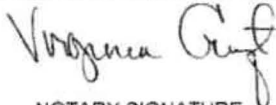
Selected zones in the Green River Formation will be used for water injection. The maximum requested injection pressures and rates will be determined based on fracture gradient information submitted by Newfield Production Company.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, UT 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedural rules. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 14th day of April, 2014.

STATE OF UTAH  
DIVISION OF OIL, GAS & MINING  
/s/ Brad Hill  
Permitting Manager

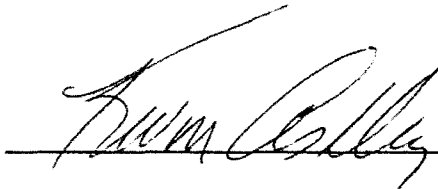


  
NOTARY SIGNATURE

# AFFIDAVIT OF PUBLICATION

County of Duchesne,  
STATE OF UTAH


I, Kevin Ashby on oath, say that I am the PUBLISHER of the Uintah Basin Standard, a weekly newspaper of general circulation, published at Roosevelt, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue such newspaper for 1 consecutive issues, and that the first publication was on the 22 day of April, 20 14, and that the last publication of such notice was in the issue of such newspaper dated the 22 day of April, 20 14, and that said notice was published on Utahlegals.com on the same day as the first newspaper publication and the notice remained on Utahlegals.com until the end of the scheduled run.

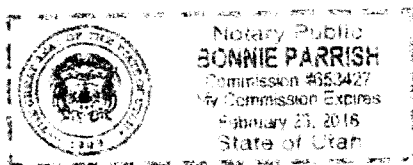
  
Publisher

Subscribed and sworn to before me on this

23 day of April, 20 14

by Kevin Ashby.

  
Notary Public



## BEFORE THE DIVISION OF OIL, GAS AND MINING DEPART- MENT OF NATURAL RESOURCES STATE OF UTAH NOTICE OF AGENCY ACTION CAUSE NO. UIC-420

IN THE MATTER  
OF THE APPLICA-  
TION OF NEW-  
FIELD PRODUCTION COMPANY  
FOR ADMINISTRATIVE APPROVAL  
OF CERTAIN  
WELLS LOCATED  
IN SECTIONS  
13, 16, 19, 21, and  
23, TOWNSHIP 9  
SOUTH, RANGE 16  
EAST, DUCHESNE  
COUNTY, UTAH,  
AS CLASS II INJECTION  
WELLS.

THE STATE OF  
UTAH TO ALL PER-  
SONS INTERESTED  
IN THE ABOVE  
ENTITLED MAT-  
TER.

Notice is hereby  
given that the Divi-  
sion of Oil, Gas and  
Mining (the "Divi-  
sion") is commencing  
an informal adjudica-  
tive proceeding to  
consider the applica-  
tion of Newfield  
Production Company,  
1001 17th Street,  
Suite 2000, Denver,  
Colorado 80202, tele-  
phone 303-893-0102,  
for administrative  
approval of the fol-  
lowing wells located  
in Duchesne County,  
Utah, for conversion  
to Class II injection  
wells:

Greater Monument  
Butte Unit:

Federal 10-13-9-16  
well located in NW/4  
SE/4, Section 13,  
Township 9 South,  
Range 16 East

API 43-013-32653

Federal 12-13-9-16  
well located in NW/4  
SW/4, Section 13,  
Township 9 South,  
Range 16 East

API 43-013-32651

State 16-16-9-16  
well located in SE/4  
SE/4, Section 16,  
Township 9 South,  
Range 16 East

API 43-013-33854

Federal 8-19-9-16  
well located in SE/4  
NE/4, Section 19,  
Township 9 South,  
Range 16 East

API 43-013-33101

Federal 16-21-9-16  
well located in SE/4  
SE/4, Section 21,  
Township 9 South,  
Range 16 East

API 43-013-33165

Federal 12-23-9-16  
well located in NW/4  
SW/4, Section 23,  
Township 9 South,  
Range 16 East

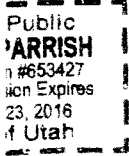
API 43-013-33179

The proceeding  
will be conducted in  
accordance with Utah  
Admin. R649-10,  
Administrative Proce-  
dures.

Selected zones  
in the Green River  
Formation will be

*Erish*

Notary Public



NE/4, Section 19,  
Township 9 South,  
Range 16 East  
API 43-013-33101  
Federal 16-21-9-16  
well located in SE/4  
SE/4, Section 21,  
Township 9 South,  
Range 16 East

API 43-013-33165  
Federal 12-23-9-16  
well located in NW/4  
SW/4, Section 23,  
Township 9 South,  
Range 16 East

API 43-013-33179  
The proceeding  
will be conducted in  
accordance with Utah  
Admin. R649-10,  
Administrative Proce-  
dures.

Selected zones  
in the Green River  
Formation will be  
used for water injec-  
tion. The maximum  
requested injection  
pressures and rates  
will be determined  
based on fracture  
gradient informa-  
tion submitted by  
Newfield Production  
Company.

Any person  
desiring to object to  
the application or  
otherwise intervene  
in the proceeding,  
must file a written  
protest or notice of  
intervention with  
the Division within  
fifteen days following  
publication of this  
notice. The Division's  
Presiding Officer  
for the proceeding is  
Brad Hill, Permitting  
Manager, at P.O. Box  
145801, Salt Lake  
City, UT 84114-5801,  
phone number (801)  
538-5340. If such  
a protest or notice  
of intervention is  
received, a hearing  
will be scheduled  
in accordance with  
the aforementioned  
administrative  
procedural rules.  
Protestants and/or  
interveners should be  
prepared to demon-  
strate at the hearing  
how this matter af-  
fects their interests.

Dated this 14th day  
of April, 2014.

STATE OF UTAH  
DIVISION OF  
OIL, GAS & MIN-  
ING

/s/

Brad Hill

Published in the  
Uintah Basin Stan-  
dard April 22, 2014.

BEFORE THE DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH  
NOTICE OF AGENCY ACTION  
CAUSE NO. UIC-420

IN THE MATTER OF THE APPLICATION OF NEWFIELD PRODUCTION COMPANY FOR ADMINISTRATIVE APPROVAL OF CERTAIN WELLS LOCATED IN SECTIONS 13, 16, 19, 21, and 23, TOWNSHIP 9 SOUTH, RANGE 16 EAST, DUCHESNE COUNTY, UTAH, AS CLASS II INJECTION WELLS.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Newfield Production Company, 1001 17<sup>th</sup> Street, Suite 2000, Denver, Colorado 80202, telephone 303-893-0102, for administrative approval of the following wells located in Duchesne County, Utah, for conversion to Class II injection wells:

Greater Monument Butte Unit:

Federal 10-13-9-16 well located in NW/4 SE/4, Section 13, Township 9 South, Range 16 East  
API 43-013-32653

Federal 12-13-9-16 well located in NW/4 SW/4, Section 13, Township 9 South, Range 16 East  
API 43-013-32651

State 16-16-9-16 well located in SE/4 SE/4, Section 16, Township 9 South, Range 16 East  
API 43-013-33854

Federal 8-19-9-16 well located in SE/4 NE/4, Section 19, Township 9 South, Range 16 East  
API 43-013-33101

Federal 16-21-9-16 well located in SE/4 SE/4, Section 21, Township 9 South, Range 16 East  
API 43-013-33165

Federal 12-23-9-16 well located in NW/4 SW/4, Section 23, Township 9 South, Range 16 East  
API 43-013-33179

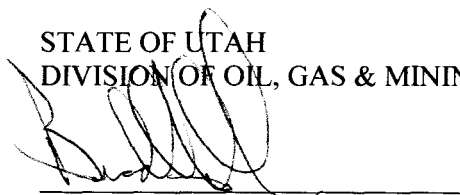
The proceeding will be conducted in accordance with Utah Admin. R649-10, Administrative Procedures.

Selected zones in the Green River Formation will be used for water injection. The maximum requested injection pressures and rates will be determined based on fracture gradient information submitted by Newfield Production Company.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, UT 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedural rules. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 14th day of April, 2014.

STATE OF UTAH  
DIVISION OF OIL, GAS & MINING



Brad Hill  
Permitting Manager

**Newfield Production Company**

**FEDERAL 10-13-9-16, FEDERAL 12-13-9-16, STATE 16-16-9-16,  
FEDERAL 8-19-9-16, FEDERAL 16-21-9-16, FEDERAL 12-23-9-16**

**Cause No. UIC-420**

Publication Notices were sent to the following:

Newfield Production Company  
1001 17th Street, Suite 2000  
Denver, CO 80202

Uintah Basin Standard  
268 South 200 East  
Roosevelt, UT 84066  
via e-mail [legals @ubstandard.com](mailto:legals@ubstandard.com)

Salt Lake Tribune  
P O Box 45838  
Salt Lake City, UT 84145  
via e-mail [naclegal@mediaoneutah.com](mailto:naclegal@mediaoneutah.com)

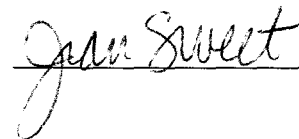
Vernal Office  
Bureau of Land Management  
170 South 500 East  
Vernal, UT 84078

SITLA  
675 E 500 S Ste 500  
Salt Lake City, UT 84102-2818

Duchesne County Planning  
P O Box 317  
Duchesne, UT 84021-0317

Bruce Suchomel  
US EPA Region 8  
MS 8P-W-GW  
1595 Wynkoop Street  
Denver, CO 80202-1129

Newfield Production Company  
Rt 3 Box 3630  
Myton, UT 84052

  
\_\_\_\_\_





GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

April 15, 2014

Via e-mail: [legals@ubstandard.com](mailto:legals@ubstandard.com)

Uintah Basin Standard  
268 South 200 East  
Roosevelt, UT 84066

Subject: Notice of Agency Action – Newfield Production Company Cause No. UIC-420

To Whom It May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: [jsweet@utah.gov](mailto:jsweet@utah.gov).

Please send proof of publication and billing to:

Division of Oil, Gas and Mining  
PO Box 145801  
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet  
Executive Secretary

Enclosure

Jean Sweet <jsweet@utah.gov>

---

**Re: Notice of Agency Action - Newfield Production Company Cause No. UIC-420**

1 message

---

Cindy Kleinfelter <ckleinfelter@ubmedia.biz>

Thu, Apr 17, 2014 at 2:08 PM

To: Jean Sweet <jsweet@utah.gov>

On 4/15/2014 9:08 AM, Jean Sweet wrote:

To Whom It May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov.

Please send proof of publication and billing to:

Division of Oil, Gas and Mining

PO Box 145801

Salt Lake City, UT 84114-5801

Sincerely,

-  
Jean Sweet  
Executive Secretary  
Utah Division of Oil, Gas and Mining  
801-538-5329

Received. Thank you. It will publish April 22.

Cindy



GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

April 15, 2014

Via e-mail [naclegal@mediaoneutah.com](mailto:naclegal@mediaoneutah.com)

Salt Lake Tribune  
P. O. Box 45838  
Salt Lake City, UT 84145

Subject: Notice of Agency Action – Newfield Production Company Cause No. UIC-420

To Whom It May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: [jsweet@utah.gov](mailto:jsweet@utah.gov).

Please send proof of publication and billing for **account #9001402352** to:

Division of Oil, Gas and Mining  
PO Box 145801  
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet  
Executive Secretary

Enclosure

## Order Confirmation for Ad #0000952488-01

<b>Client</b>	DIV OF OIL-GAS & MINING	<b>Payor Customer</b>	DIV OF OIL-GAS & MINING
<b>Client Phone</b>	801-538-5340	<b>Payor Phone</b>	801-538-5340
<b>Account#</b>	9001402352	<b>Payor Account</b>	9001402352
<b>Address</b>	1594 W NORTH TEMPLE STE 1210, SALT LAKE CITY UT 84116-3154 USA	<b>Payor Address</b>	1594 W NORTH TEMPLE STE 1210, SALT LAKE CITY UT 84116-3154

**Fax** 801-359-3940  
**Email** juliecarter@utah.gov

**Ordered By** Jean  
**Acct. Exec** kstowe

**Total Amount** \$250.28

**Payment Amt** \$0.00

**Amount Due** \$250.28

**Payment Method**

**Confirmation Notes:**

**Text:** Jean

<b>Ad Type</b>	<b>Ad Size</b>	<b>Color</b>
Legal Liner	2.0 X 73 Li	<NONE>

<b>Product</b>	<b>Placement</b>	<b>Position</b>
Salt Lake Tribune::	Legal Liner Notice - 0998	998-Other Legal Notices
<b>Scheduled Date(s):</b>	4/17/2014	

<b>Product</b>	<b>Placement</b>	<b>Position</b>
Deseret News::	Legal Liner Notice - 0998	998-Other Legal Notices
<b>Scheduled Date(s):</b>	4/17/2014	

<b>Product</b>	<b>Placement</b>	<b>Position</b>
utahlegals.com::	utahlegals.com	utahlegals.com
<b>Scheduled Date(s):</b>	4/17/2014	

### Ad Content Proof Actual Size

BEFORE THE DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF UTAH  
NOTICE OF AGENCY ACTION  
CAUSE NO. UIC-420

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The proceeding will be conducted in accordance with Utah Admin. R649-10, Administrative Procedures.

Selected zones in the Green River Formation will be used for water injection. The maximum requested injection pressures and rates will be determined based on fracture gradient information submitted by Newfield Production Company.

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Dated this 14th day of April, 2014.

STATE OF UTAH  
DIVISION OF OIL, GAS & MINING  
/s/  
Brad Hill  
Permitting Manager

952488

UPAXLP

**NEWFIELD**



**Newfield Exploration Company**

1001 17th Street | Suite 2000

Denver, Colorado 80202

PH 303-893-0102 | FAX 303-893-0103

April 7, 2014

Mr. Mark Reinbold  
State of Utah  
Division of Oil, Gas and Mining  
1594 W North Temple  
Salt Lake City, Utah 84114-5801

RE: Permit Application for Water Injection Well  
State #16-16-9-16  
Monument Butte Field, Lease #ML-16532  
Section 16-Township 9S-Range 16E  
Duchesne County, Utah

**RECEIVED**

APR 08 2014

DIV. OF OIL, GAS & MINING

Dear Mr. Reinbold:

Newfield Production Company herein requests approval to convert the State #16-16-9-16 from a producing oil well to a water injection well in the Monument Butte (Green River) Field.

I hope you find this application complete; however, if you have any questions or require additional information, please contact me at (303) 893-0102.

Sincerely,

Jill L Loyle  
Regulatory Associate

**NEWFIELD PRODUCTION COMPANY**  
**APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL**  
**STATE #16-16-9-16**  
**MONUMENT BUTTE FIELD (GREEN RIVER) FIELD**  
**LEASE #ML-16532**  
**APRIL 7, 2014**

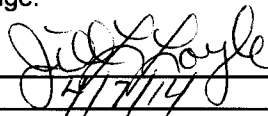
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STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR Newfield Production Company  
ADDRESS 1001 17th Street, Suite 2000  
Denver, Colorado 80202

Well Name and number: <u>State #16-16-9-16</u>	
Field or Unit name: <u>Monument Butte (Green River)</u>	Lease No. <u>ML-16532</u>
Well Location: QQ <u>SESE</u> section <u>16</u> township <u>9S</u> range <u>16E</u> county <u>Duchesne</u>	
Is this application for expansion of an existing project? ..... Yes [ X ] No [ ]	
Will the proposed well be used for:	Enhanced Recovery? ..... Yes [ X ] No [ ]
	Disposal? ..... Yes [ ] No [ X ]
	Storage? ..... Yes [ ] No [ X ]
Is this application for a new well to be drilled? ..... Yes [ ] No [ X ]	
If this application is for an existing well, has a casing test been performed on the well? ..... Yes [ ] No [ X ]	
Date of test: _____	
API number: <u>43-013-33854</u>	
Proposed injection interval: from <u>3895</u> to <u>5684</u>	
Proposed maximum injection: rate <u>500 bpd</u> pressure <u>1567</u> psig	
Proposed injection zone contains [ x ] oil, [ ] gas, and/or [ ] fresh water within 1/2 mile of the well.	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"><b>IMPORTANT:</b> Additional information as required by R615-5-2 should accompany this form.</div>	
List of Attachments: <u>Attachments "A" through "H-1"</u>	
I certify that this report is true and complete to the best of my knowledge.	
Name: <u>Jill L. Loyle</u>	Signature <u></u>
Title: <u>Regulatory Associate</u>	Date: <u>4/7/14</u>
Phone No. <u>303-383-4135</u>	
(State use only)	
Application approved by _____	Title _____
Approval Date _____	
Comments:	



# State 16-16-9-16

Spud Date: 05-03-08  
Put on Production: 05-12-08  
GL: 5879' KB: 5891'

## SURFACE CASING

CSG SIZE: 8-5/8"  
GRADE: J-55  
WEIGHT: 24#  
LENGTH: 7jts (305.64')  
DEPTH LANDED: 316'  
HOLE SIZE: 12-1/4"  
CEMENT DATA: To Surface with 160 sx Class 'G' cmt

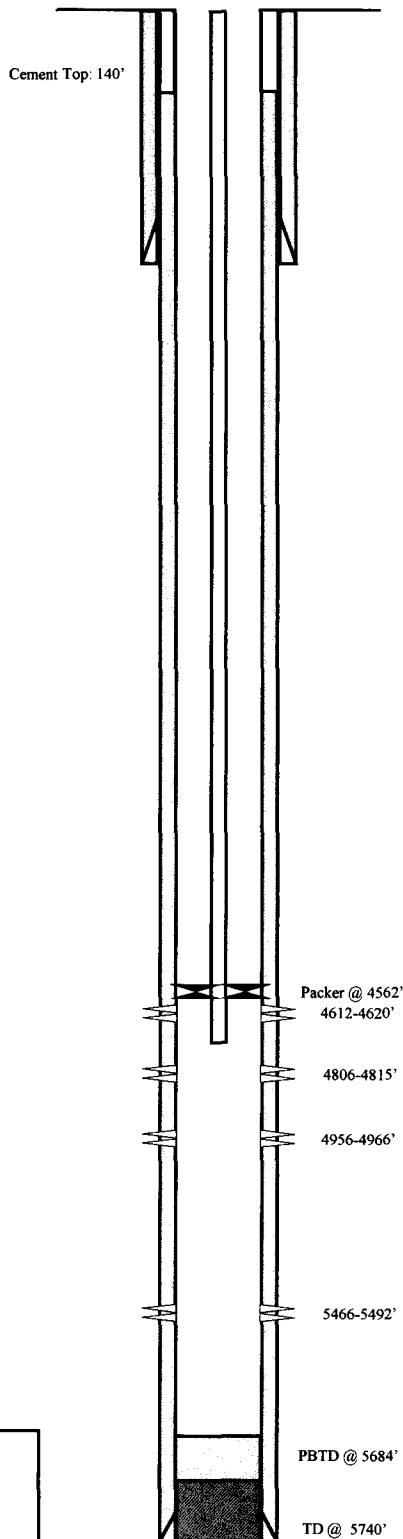
## PRODUCTION CASING

CSG SIZE: 5-1/2"  
GRADE: J-55  
WEIGHT: 15.5#  
LENGTH: 139jts  
HOLE SIZE: 7-7/8"  
DEPTH LANDED: 5732'  
CEMENT DATA: 275 sx Premlite II and 400 sx 50/50 Poz  
CEMENT TOP AT: 140'

## TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55  
NO. OF JOINTS: 173 jts (5432.6')  
TUBING ANCHOR: 5444.6'kb  
NO. OF JOINTS: 2jts (63.0')  
SEATING NIPPLE: 2-7/8" (1.10')  
SN LANDED AT: 5510.4'kb  
NO. OF JOINTS: 1 jt. (31.3')  
TOTAL STRING LENGTH: EOT @ 5544'

## Proposed Injection Wellbore Diagram



## FRAC JOB

6-16-08 5466-5492' **RU BJ & frac CP1 sds as follows:**  
56,437# 20/40 sand in 509 bbls of Lightning 17 frac fluid. Treated @  
ave pressure of 1203 w/ ave rate of 23.5 bpm w/ 8 ppg of sand. ISIP  
was 1603. Actual Flush: 5006 gals.

6-16-08 4956-4966' **RU BJ & frac stage #2 as follows:**  
47,866# 20/40 sand in 458 bbls of Lightning 17 frac fluid. Treated @  
ave pressure of 2113 w/ ave rate of 23.3 bpm w/ 8 ppg of sand. ISIP  
was 2460. Actual Flush: 4523 gals.

6-16-08 4806-4815' **RU BJ & frac stage #3 as follows:**  
19,736# 20/40 sand in 307 bbls of Lightning 17 frac fluid. Treated @  
ave pressure of 1699 w/ ave rate of 23.2 bpm w/ 6 ppg of sand. ISIP  
was 1822. Actual Flush: 4347 gals.

6-16-08 4612-4620' **RU BJ & frac stage #4 as follows:**  
16,608# 20/40 sand in 290 bbls of Lightning 17 frac fluid. Treated @  
ave pressure of 1953 w/ ave rate of 23.4 bpm w/ 6 ppg of sand. 1699  
bbls EWTR. ISIP was 1888. Actual Flush: 4615 gals.

7/28/08 Pump Change. Updated rod & tubing  
details.

3-13-09 Tubing Leak. Updated r & t details.

10/19/09 Pump Change. Updated rod & tubing  
detail.

6/17/2010 Tubing leak. Updated rod and tubing  
detail.

## PERFORATION RECORD

4612-4620'	4 JSPF	32 holes
4806-4815'	4 JSPF	36 holes
4956-4966'	4 JSPF	40 holes
5466-5492'	4 JSPF	104 holes

## **NEWFIELD**

**State 16-16-9-16**  
658' FSL & 664' FEL  
SE/SE Section 16-T9S-R16E  
Duchesne Co, Utah  
API #43-013-33854; Lease # Utah State ML-16532

## **WORK PROCEDURE FOR INJECTION CONVERSION**

1. Rig up hot oil truck to casing. Pump water. Unseat pump. Flush rods. Trip out of hole with rods and pump.
2. Trip out of hole with tubing, breaking and doping every connection. Trip in hole with packer and tubing. Rig up water truck to casing. Pump packer fluid. Set packer.
3. Test casing and packer.
4. Rig down and move out.

**REQUIREMENTS FOR INJECTION OF FLUIDS INTO RESERVOIRS  
RULE R615-5-1**

- 1. Operations to increase ultimate recovery, such as cycling of gas, the maintenance of pressure, the introduction of gas, water or other substances into a reservoir for the purpose of secondary or other enhanced recovery or for storage and the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Board after notice and hearing.**
- 2. A request for agency action for authority for the injection of gas, liquified petroleum gas, air, water or any other medium into any formation for any reason, including but not necessarily limited to the establishment of or the expansion of waterflood projects, enhanced recovery projects, and pressure maintenance projects shall contain:**

**2.1 The name and address of the operator of the project.**

Newfield Production Company  
1001 17<sup>th</sup> Street, Suite 2000  
Denver, Colorado 80202

**2.2 A plat showing the area involved and identifying all wells, including all proposed injection wells, in the project area and within one-half mile of the project area.**

See Attachment A.

**2.3 A full description of the particular operation for approval is requested.**

Approval is requested to convert the State #16-16-9-16 from a producing oil well to a water injection well in Monument Butte (Green River) Field.

**2.4 A description of the pools from which the identified wells are producing or have produced.**

The proposed injection well will inject into the Green River Formation.

**2.5 The names, description and depth of the pool or pools to be affected.**

The injection zone is in the Green River Formation. For the State #16-16-9-16 well, the proposed injection zone is from Garden Gulch to Castle Peak (3895' - 5684'). The confining strata directly above and below the injection zones are the Garden Gulch and the top of the Wasatch Formation or TD, whichever is shallower. The Garden Gulch Marker top is at 3570' and the TD is at 5740'.

**2.6 A copy of a log of a representative well completed in the pool.**

The referenced log for the State #16-16-9-16 is on file with the Utah Division of Oil, Gas and Mining.

- 2.7 A statement as to the type of fluid to be used for injection, its source and the estimated amounts to be injected daily.**

The primary type and source of fluid to be used for injection will be culinary water commingled with produced water. The average estimated injection of fluids will be at a rate of 300 BPD, and the estimated maximum injection will be at a rate of 500 BPD.

- 2.8 A list of all operators and surface owners within one-half mile radius of the proposed project.**

See Attachment B.

- 2.9 An affidavit certifying that said operators or owners and surface owners within a one-half mile radius have been provided a copy of the petition for injection.**

See Attachment C.

- 2.10 Any additional information the Board may determine is necessary to adequately review the petition.**

Newfield Production Company will supply any additional information requested by the Utah Division of Oil, Gas and Mining.

- 4.0 Establish recovery projects may be expanded and additional wells placed on injection only upon authority from the Board after notice and hearing or by administrative approval.**

This proposed injection well is on a State lease (Lease #ML-16532) in the Monument Butte Federal (Green River) Field, and this request is for administrative approval.

**REQUIREMENTS FOR CLASS II INJECTION WELLS INCLUDING WATER DISPOSAL,  
STORAGE AND ENHANCED RECOVERY WELLS  
SECTION V – RULE R615-5-2**

- 1. Injection well shall be completed, equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.**
- 2. The application for an injection well shall include a properly completed Form DOGM-UIC-1 and the following:**
  - 2.1 A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed wells, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.**

See Attachments A and B.
  - 2.2 Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper and porosity.**

All logs are on file with the Utah Division of Oil, Gas and Mining.
  - 2.3 A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.**

A copy of the cement bond log is on file with the Utah Division of Oil, Gas and Mining.
  - 2.4 Copies of logs already on file with the Division should be referenced, but need not be refiled.**

All copies of logs are on file with the Utah Division of Oil, Gas and Mining.
  - 2.5 A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.**

The casing program is 8-5/8", 24# surface casing run to 316' KB, and 5-1/2", 15.5# casing run from surface to 5732' KB. A casing integrity test will be conducted at the time of conversion. See Attachment E.
  - 2.6 A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.**

The primary type and source of fluid to be used for injection will be culinary water commingled with produced water. The estimated average rate of injection will be 300 BPD, and the estimated maximum rate of injection will be 500 BPD.
  - 2.7 Standard laboratory analysis of the fluid to be injected, the fluid in the formation into which the fluid is being injected, and the compatibility of the fluids.**

See Attachment F.

**2.8 The proposed average and maximum injection pressures.**

The proposed average injection pressure will be approximately 1100 psig and the maximum injection pressure will not exceed 1567 psig.

**2.9 Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.**

The minimum fracture gradient for the State #16-16-9-16, for existing perforations (4612' - 5492') calculates at 0.73 psig/ft. The maximum injection pressures will be limited so as not to exceed this gradient. A step rate test will be performed periodically to ensure we are below parting pressure. The proposed maximum injection pressure is 1567 psig. We may add additional perforations between 3570' and 5740'. See Attachments G and G-1.

**2.10 Appropriate geological data on the injection interval and confining beds, including the geologic name, lithologic description, thickness, depth, and lateral extent.**

In the State #16-16-9-16, the proposed injection zone (3895' - 5684') is in the Garden Gulch to the Castle Peak of the Green River Formation. The reservoir is a very fine-grained sandstone with minor imbedded shale streaks. The estimated porosity is 13%. The members are composed of porous and permeable lenticular calcareous sandstone and low porosity carbonates and calcareous shale. The porous and lenticular sandstone varies in thickness from 0-31' and is confined to the Monument Butte Federal Field. Outside the Monument Butte Federal Field, the sandstone is composed of tight, very fine, silty, calcareous sandstone, less than 3' thick. The stratum confining the injection zone is composed of tight, moderately calcareous, sandy lacustrine shale. All of the confining strata are impermeable, and will effectively seal off the oil, gas, and water of the injection zone from any strata directly above or below it.

**2.11 A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter the improper intervals.**

See Attachments E through E-10.

Additionally, the injection system will be equipped with high and low pressure shut down devices that will automatically shut in injection waters if a system blockage or leakage occurs. One way check valves will also ensure proper flow management. Relief valves will also be utilized for high-pressure relief.

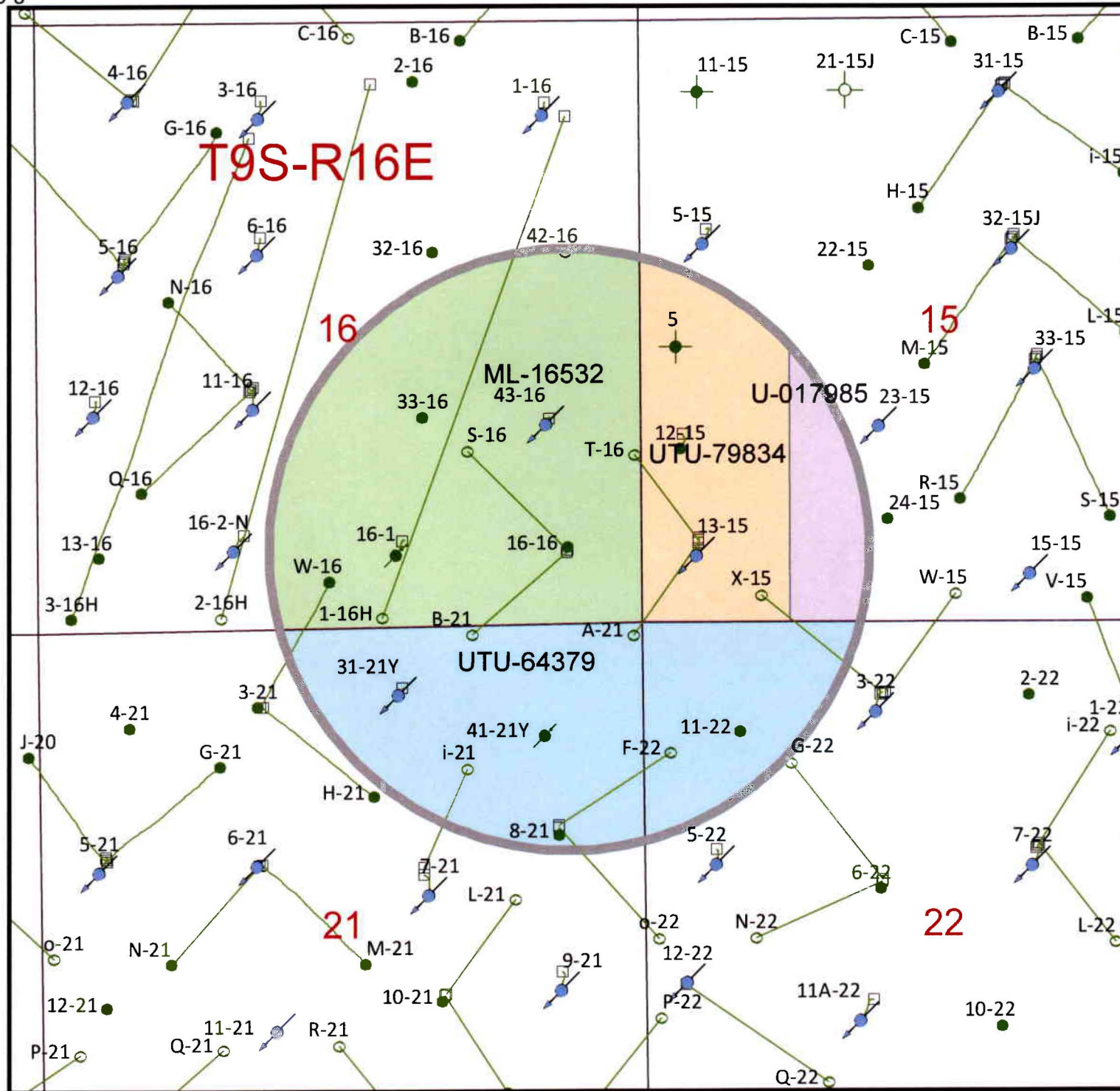
**2.12 An affidavit certifying that a copy of the application has been provided to all operators or owners, and surface owners within a one-half mile radius of the proposed injection well.**

See Attachment C.

**2.13 Any other information that the Board or Division may determine is necessary to adequately review the application.**

Newfield Production Company will supply any requested information to the Board or Division.

U-8



## Lease Number

- ML-16532
- U-017985
- UTU-64379
- UTU-79834

Half-Mile Buffer

## Well Status

- Location
- Surface Spud
- Drilling
- Waiting on Completion
- Producing Oil Well
- Producing Gas Well
- Water Injection Well
- Water Disposal Well
- Dry Hole
- Temporarily Abandoned
- Plugged & Abandoned
- Shut In
- Well Surface Location

STATE 16-16-9-16  
Section 16, T9S-R16E



1/2 Mile Radius Map

Duchesne County

1001 17th Street Suite 2000  
Denver, Colorado 80202  
Phone (303) 893-0102

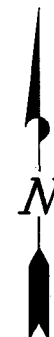
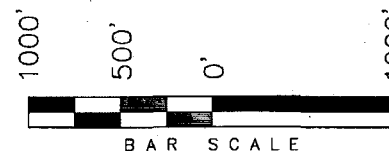
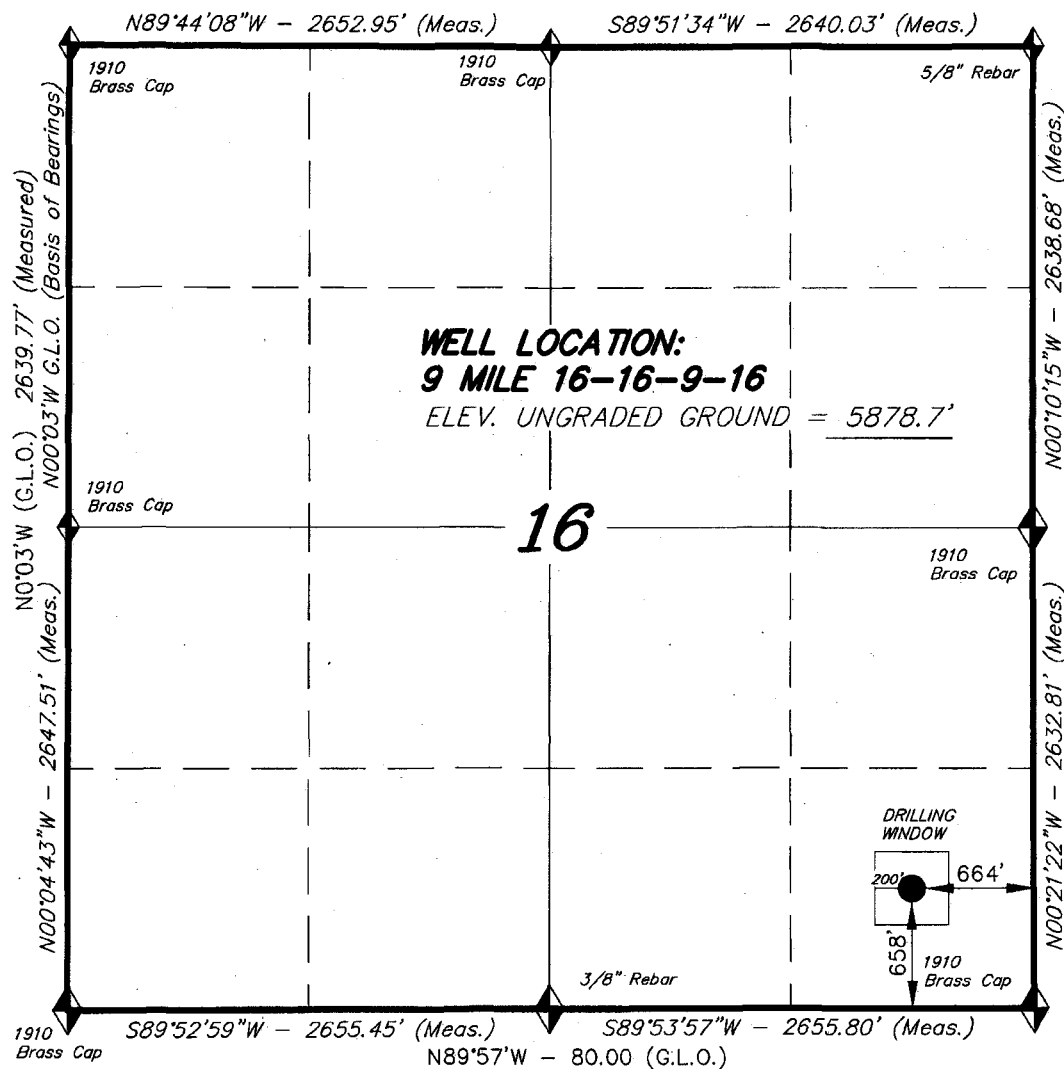
Feb. 27, 2014

**T9S, R16E, S.L.B.&M.**

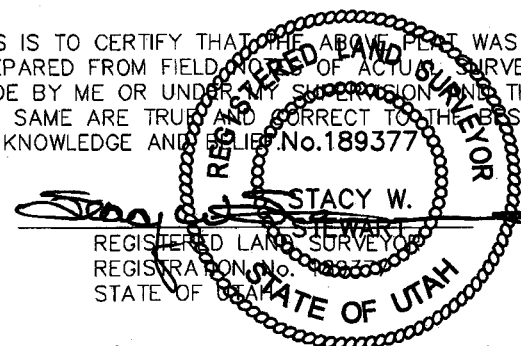
N89°50'W - 80.24 (G.L.O.)

**NEWFIELD PRODUCTION COMPANY**

WELL LOCATION, 9 MILE 16-16-9-16,  
LOCATED AS SHOWN IN THE SE 1/4 SE  
1/4 OF SECTION 16, T9S, R16E,  
S.L.B.&M. DUCHESNE COUNTY, UTAH.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF. No. 189377

**TRI STATE LAND SURVEYING & CONSULTING**

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 10-08-07	SURVEYED BY: C.M.
DATE DRAWN: 11-02-07	DRAWN BY: F.T.M.
REVISED:	SCALE: 1" = 1000'

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV;  
U.S.G.S. 7-1/2 min QUAD (MYTON SE)

**9 MILE 16-16-9-16**  
**(Surface Location) NAD 83**  
LATITUDE = 40° 01' 31.52"  
LONGITUDE = 110° 07' 01.87"



**EXHIBIT B**

#	Legal Description	Lessor & Expiration	Lessee & Operating Rights	Surface Owner
1	T9S-R16E SLM Section 16: ALL	State of Utah ML 16532 HBP	QEP Energy Company El Paso E&P Company, LP Isramco Resources Inc Brave River Production Santa Fe Snyder Corporation Santa Fe Snyder Corporation Oxy USA Inc MYCO Industries Inc ABO Petroleum Corporation Yates Petroleum Corporation Newfield RMI LLC Newfield Production Company	State of Utah
2	T9S-R16E SLM Section 10: S2SE Section 15: E2,E2W2	USA UTU-017985 HBP	Newfield Production Company Newfield RMI LLC ABO Petroleum Corp MYCO Industries Inc OXY Y-1 Company Yates Petroleum Corp	USA
3	T9S-R16E SLM Section 8: SWNE, SE Section 9: SWSW Section 17: NE Section 18: E2SW, SE, LOTS 3,4 Section 19: NE, E2NW, LOTS 1,2 Section 21: N2 Section 22: W2NE, SENE, NW	USA UTU-64379 HBP	Newfield Production Company Newfield RMI LLC Yates Petroleum Corp	USA
4	T9S-R16E SLM Section 15: W2W2	USA UTU-79834 HBP	Newfield Production Company Newfield RMI LLC	USA

ATTACHMENT C

CERTIFICATION FOR SURFACE OWNER NOTIFICATION

RE: Application for Approval of Class II Injection Well  
State #16-16-9-16

I hereby certify that a copy of the injection application has been provided to all surface owners within a one-half mile radius of the proposed injection well.

Signed: \_\_\_\_\_

*Jill L. Loyle*  
Newfield Production Company  
Jill L. Loyle  
Regulatory Associate

Sworn to and subscribed before me this 7<sup>th</sup> day of April, 2014.

Notary Public in and for the State of Colorado: \_\_\_\_\_

*Lydia Biondo*

My Commission Expires: \_\_\_\_\_

12/31/15

LYDIA BIONDO  
Notary Public  
State of Colorado

Attachment E

## State 16-16-9-16

Spud Date: 05-03-08  
Put on Production: 05-12-08  
GL: 5879' KB: 5891'

### Wellbore Diagram

#### SURFACE CASING

CSG SIZE: 8-5/8"  
GRADE: J-55  
WEIGHT: 24#  
LENGTH: 7jts (305.64')  
DEPTH LANDED: 316'  
HOLE SIZE: 12-1/4"  
CEMENT DATA: To Surface with 160 sx Class 'G' cmt

#### PRODUCTION CASING

CSG SIZE: 5-1/2"  
GRADE: J-55  
WEIGHT: 15.5#  
LENGTH: 139jts  
HOLE SIZE: 7-7/8"  
DEPTH LANDED: 5732'  
CEMENT DATA: 275 sx Premite II and 400 sx 50/50 Poz  
CEMENT TOP AT: 140'

#### TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55  
NO. OF JOINTS: 173 jts (5432.6')  
TUBING ANCHOR: 5444.6'kb  
NO. OF JOINTS: 2jts (63.0')  
SEATING NIPPLE: 2-7/8" (1.10')  
SN LANDED AT: 5510.4'kb  
NO. OF JOINTS: 1 jt. (31.3')  
TOTAL STRING LENGTH: EOT @ 5544'

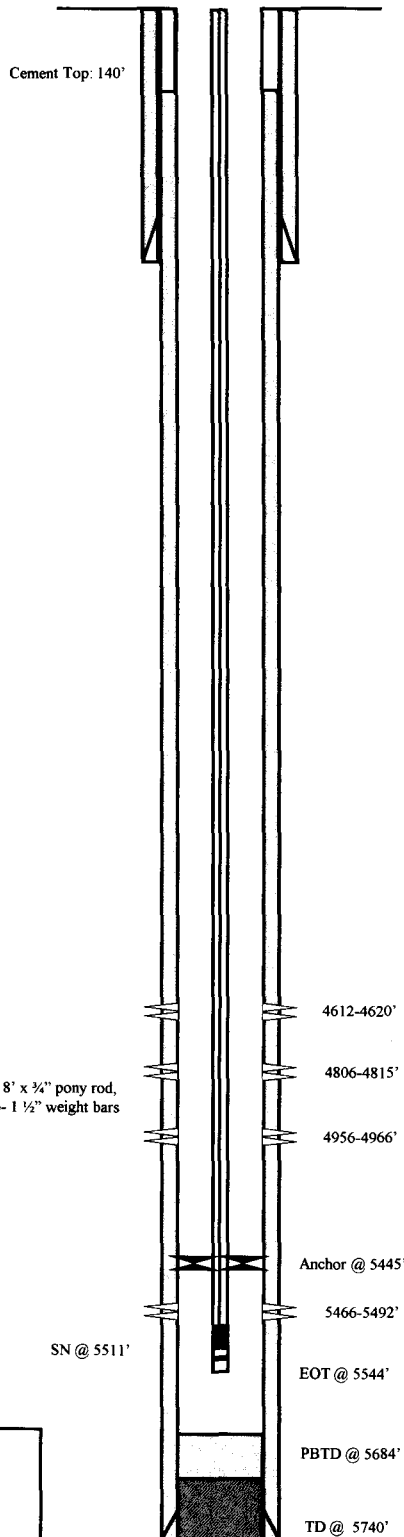
#### SUCKER RODS

POLISHED ROD: 1-1/2" x 26'  
SUCKER RODS: 1-2' x 3/4" pony rod, 1-6' x 3/4" pony rod, 1-8' x 3/4" pony rod, 98-3/4" guided rods, 43-3/4" sucker rods, 71-3/4" guided rods, 6-1 1/2" weight bars  
PUMP SIZE: CDI 2 1/2" x 1 1/2" x 17" RHAC  
STROKE LENGTH: 86"  
PUMP SPEED, SPM: 5

#### FRAC JOB

6-16-08 5466-5492' **RU BJ & frac CP1 sds as follows:**  
56,437# 20/40 sand in 509 bbls of Lightning 17 frac fluid. Treated @ ave pressure of 1203 w/ ave rate of 23.5 bpm w/ 8 ppg of sand. ISIP was 1603. Actual Flush: 5006 gals.  
6-16-08 4956-4966' **RU BJ & frac stage #2 as follows:**  
47,866# 20/40 sand in 458 bbls of Lightning 17 frac fluid. Treated @ ave pressure of 2113 w/ ave rate of 23.3 bpm w/ 8 ppg of sand. ISIP was 2460. Actual Flush: 4523 gals.  
6-16-08 4806-4815' **RU BJ & frac stage #3 as follows:**  
19,736# 20/40 sand in 307 bbls of Lightning 17 frac fluid. Treated @ ave pressure of 1699 w/ ave rate of 23.2 bpm w/ 6 ppg of sand. ISIP was 1822. Actual Flush: 4347 gals.  
6-16-08 4612-4620' **RU BJ & frac stage #4 as follows:**  
16,608# 20/40 sand in 290 bbls of Lightning 17 frac fluid. Treated @ ave pressure of 1953 w/ ave rate of 23.4 bpm w/ 6 ppg of sand. 1699 bbls EWTR. ISIP was 1888. Actual Flush: 4615 gals.

7/28/08 Pump Change. Updated rod & tubing details.  
3-13-09 Tubing Leak. Updated r & t details.  
10/19/09 Pump Change. Updated rod & tubing detail.  
6/17/2010 Tubing leak. Updated rod and tubing detail.



#### PERFORATION RECORD

4612-4620'	4 JSPF	32 holes
4806-4815'	4 JSPF	36 holes
4956-4966'	4 JSPF	40 holes
5466-5492'	4 JSPF	104 holes

**NEWFIELD**

State 16-16-9-16  
658' FSL & 664' FEL  
SE/SE Section 16-T9S-R16E  
Duchesne Co, Utah  
API #43-013-33854; Lease # Utah State ML-16532

## State 16-1-O-9-16

Spud Date: 01/04/85  
Put on Production: 03/23/85  
GL: 5927' KB: 5941'

## Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"  
GRADE: ?  
WEIGHT: 24#  
LENGTH: 250'  
DEPTH LANDED: 250' KB  
HOLE SIZE: 12-1/4"  
CEMENT DATA: 250 sxs Class "G"

PRODUCTION CASING

CSG SIZE: 5-1/2"  
GRADE: J-55  
WEIGHT: 15.5#  
LENGTH: 148 jnts  
DEPTH LANDED: 5646'  
HOLE SIZE: 7-7/8"  
CEMENT DATA: 275 sxs High Left & 485 sxs Class "G"  
CEMENT TOP AT: <1000' per CBL 3/5/85

TUBING (GI 11/7/11)

SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#  
NO. OF JOINTS: 170 jts (5343.80')  
TUBING ANCHOR: 5359.8'  
NO. OF JOINTS: 2 jts (61.22')  
SEATING NIPPLE: 2-7/8" (1.10')  
SN LANDED AT: 5424.82'  
NO. OF JOINTS: 1 (31.57')  
GAS ANCHOR: 2-7/8" (5.33')  
NO OF JOINTS: 2 (63.89')  
PBGA: 0.74'  
TOTAL STRING LENGTH: EOT @ 5527.45'

SUCKER RODS (GI 12/15/11)

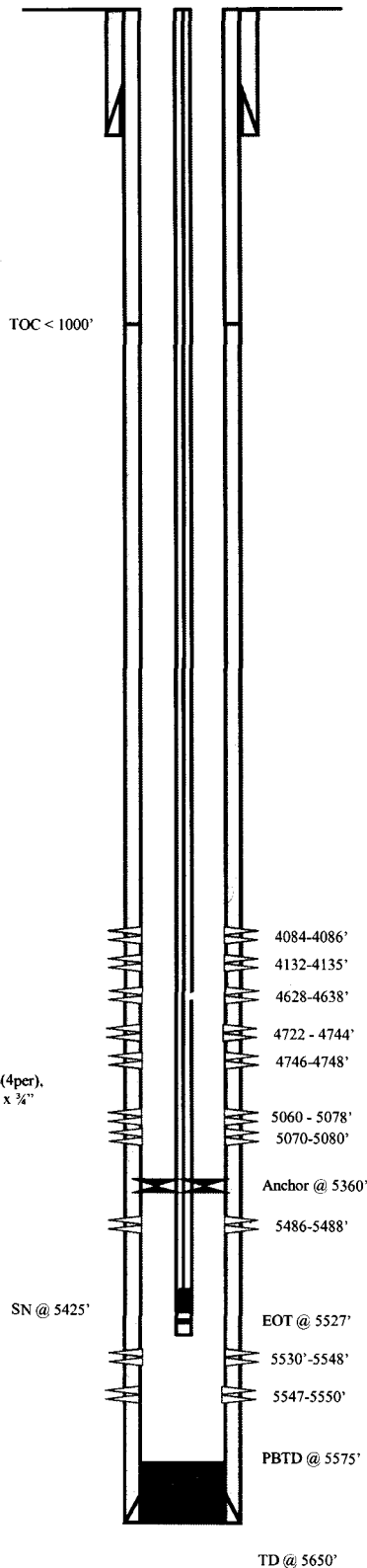
POLISHED ROD: 1-1/2" x 22' SM  
SUCKER RODS: 2', 4', 4', 8 x 7/8" pony rods, 10 x 7/8" guided rods(4per), 123 x 3/4" sucker rods, 15 x 3/4" guided rods, 21 x 3/4" sucker rods, 39 x 3/4" guided rods(4per), 5 x 1" stabilizer bars, 5 x 1-1/2" sinker bars  
PUMP SIZE: 2-1/2" x 1-1/2" x 16' x 20' RHAC  
STROKE LENGTH: 84"  
PUMP SPEED, SPM: 4  
PUMPING UNIT: LUFKIN C-320-250-84

FRAC JOB

3/9/85	5530-5548'	Frac'd with: 80000# 20/40 sand in 761 bbls gelled water
3/13/85	5060-5078'	Frac'd with: 50000# 20/40 sand in gelled water
3/16/85	4722-4744'	Frac'd with: 500000# 20/40 sand in 481 bbls gelled water
11/14/11	5486-5550'	Frac'd CPI sands with: 38960# 20/40 sand in 312 bbls Lightning 17
11/19/11	5070-5080'	Frac'd A1 sands with: 48942# 20/40 sand in 392 bbls Lightning 17
11/19/11	4746-4748'	Frac'd D3 sands with: 34173# 20/40 sand in 283 bbls Lightning 17
11/21/11	4628-4638'	Frac'd D1 sands with: 34603# 20/40 sand in 283 bbls Lightning 17
11/21/11	4084-4135'	Frac'd GB4&GB6 sands with: 30474# 20/40 sand in 247 bbls Lightning 17

PERFORATION RECORD

5530-5548'	4 JSPF	72 Holes
5060-5078'	4 JSPF	72 Holes
4722-4744'	4 JSPF	88 Holes
5547-5550'	3 JSPF	9 Holes
5486-5488'	3 JSPF	6 Holes
5070-5080'	3 JSPF	30 Holes
4746-4748'	3 JSPF	6 Holes
4628-4638'	3 JSPF	30 Holes
4132-4135'	3 JSPF	9 Holes
4084-4086'	3 JSPF	6 Holes



NEWFIELD

State 16-1-0  
755' FSL & 2110' FEL  
SW/SE Section 16-T9S-R16E  
Duchesne County, Utah  
API #43-013-31022; Lease #ML-16532



Well Name: Federal 12-15-9-16

43-013-50429

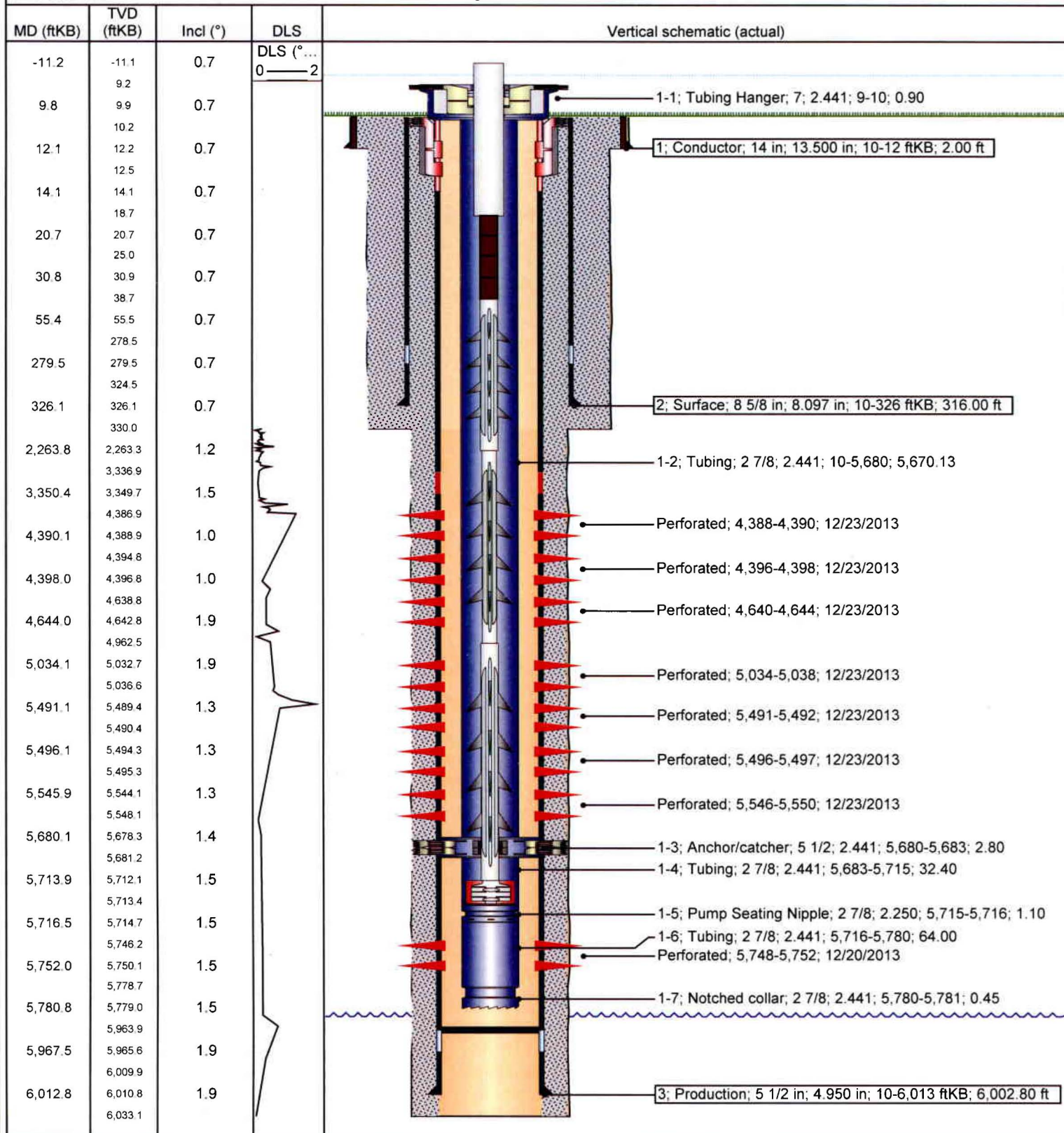
Surface Legal Location NW/4SW 1639 FSL 362 FWL Sec 15 T9S R16E				API/UWI 43013504290000	Well RC 500162753	Lease UTU79834	State/Province Utah	Field Name GMBU CTB5	County Duchesne
Spud Date 11/21/2013	Rig Release Date 12/6/2013	On Production Date 1/3/2014	Original KB Elevation (ft) 5,845	Ground Elevation (ft) 5,835	Total Depth All (TVD) (ftKB) Original Hole - 6,033.0	PBDT (All) (ftKB) Original Hole - 5,965.9			

## Most Recent Job

Job Category Initial Completion	Primary Job Type Fracture Treatment	Secondary Job Type P&P	Job Start Date 12/20/2013	Job End Date 1/3/2014
------------------------------------	--	---------------------------	------------------------------	--------------------------

TD: 6,035.0

Vertical - Original Hole, 4/2/2014 3:28:42 PM



## Federal 13-15-9-16

Spud Date: 5-21-07

Put on Production: 6-25-07

GL: 5846' KB: 5858'

SURFACE CASING

CSG SIZE: 8-5/8"

GRADE: J-55

WEIGHT: 24#

LENGTH: 7 jnts (312.81')

DEPTH LANDED: 323.71' KB

HOLE SIZE: 12-1/4"

CEMENT DATA: 160 sxs Class "G" cmt, est 1bbls cmt to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"

GRADE: J-55

WEIGHT: 15.5#

LENGTH: 135 jts. (5899.55')

DEPTH LANDED: 5944.14' KB

HOLE SIZE: 7-7/8"

CEMENT DATA: 300 sxs Prem. Lite II mixed &amp; 450 sxs 50/50 POZ.

CEMENT TOP AT: 56'

TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#

NO. OF JOINTS: 128 jts (3994.3')

SEATING NIPPLE: 2-7/8" (1.10')

SN LANDED AT: 4006.3' KB

ON/OFF TOOL AT: 4007.4'

SEAL NIPPLE AT: 4008.9'

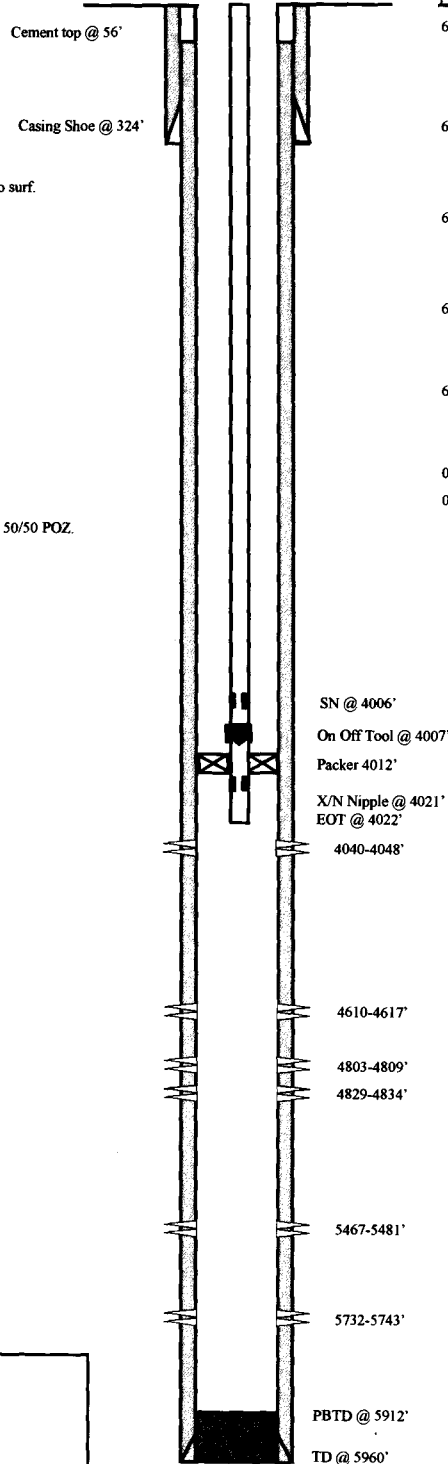
ARROW #1 PACKER CE AT: 4012.5'

XO 2-3/8 x 2-7/8 J-55 AT: 4016.2'

TBG PUP 2-3/8 J-55 AT: 4016.7'

X/N NIPPLE AT: 4020.7'

TOTAL STRING LENGTH: EOT @ 4022'

Injection Wellbore  
DiagramFRAC JOB

6-19-07	5732-5743'	<b>Frac CP5 sands as follows:</b> 4000# 20/40 sand in 406 bbls Lightning 17 frac fluid. Treated @ avg press of 1700 psi w/avg rate of 22.2 BPM. ISIP 1980 psi. Calc flush: 5730 gal. Actual flush: 5145 gal.
6-19-07	5467-5481'	<b>Frac CP1 sands as follows:</b> 50251# 20/40 sand in 432 bbls Lightning 17 frac fluid. Treated @ avg press of 1294 psi w/avg rate of 23.3 BPM. ISIP 1690 psi. Calc flush: 5465 gal. Actual flush: 4872 gal.
6-19-07	4829-4809'	<b>Frac B1 &amp; B5 sands as follows:</b> 14309# 20/40 sand in 248 bbls Lightning 17 frac fluid. Treated @ avg press of 1801 psi w/avg rate of 23.4 BPM. ISIP 1810 psi. Calc flush: 4827 gal. Actual flush: 4221 gal.
6-19-07	4610-4617'	<b>Frac D1 sands as follows:</b> 25018# 20/40 sand in 338 bbls Lightning 17 frac fluid. 21.8 BPM. ISIP 1990 psi. Calc flush: 4608 gal. Actual flush: 4011 gal.
6-19-07	4040-4048'	<b>Frac GB4 sands as follows:</b> 28952# 20/40 sand in 294 bbls Lightning 17 frac fluid. 24.7 BPM. ISIP 1723 psi. Calc flush: 4038 gal. Actual flush: 3948 gal.
09/22/12		<b>Convert to Injection Well</b>
09/25/12		<b>Conversion MIT Finalized</b> - update tbg detail

PERFORATION RECORD

6-13-07	5732-5743'	4 JSPF	36 holes
6-19-07	5467-5481'	4 JSPF	56 holes
6-19-07	4829-4834'	4 JSPF	20 holes
6-19-07	4803-4809'	4 JSPF	20 holes
6-19-07	4610-4617'	4 JSPF	28 holes
6-19-07	4040-4048'	4 JSPF	32 holes

**NEWFIELD****Federal 13-15-9-16**

717' FSL &amp; 469' FWL

SW/SW Section 15-T9S-R16E

Duchesne Co, Utah

API #43-013-33136; Lease #UTU-39713



## NEWFIELD



## Schematic - injection well

43-013-33023

Well Name: Federal 8-21-9-16

Surface Legal Location 21-9S-16E		API/LWT 43013330230000	Well RC 500154753	Lease	State/Province Utah	Field Name GMBU CTB6	County DUCHESNE
Spud Date	Rig Release Date	On Production Date 7/9/2007	Original KB Elevation (ft) 12	Ground Elevation (ft)	Total Depth All (TVD) (ftKB)	PBTD (All) (ftKB)	

## Most Recent Job

Job Category Production / Workover	Primary Job Type Conversion	Secondary Job Type Basic	Job Start Date 3/5/2014	Job End Date
---------------------------------------	--------------------------------	-----------------------------	----------------------------	--------------

TD: 6,009.1

Vertical - Original Hole, 3/10/2014 8:06:17 AM

MD (ftKB)	TVD (ftKB)	Incl (°)	DLS	DLS (°...)	Vertical schematic (actual)
12.1					<p>1; Surface; 8 5/8 in; 8,097 in; 12-313 ftKB; 300.85 ft</p> <p>2-1; Tubing; 2 7/8; 2,441; 12-4,009; 3,996.76</p> <p>2-2; Seat Nipple; 2 7/8; 2,441; 4,009-4,010; 1.10</p> <p>2-3; On-Off Tool; 2 7/8; 2,441; 4,010-4,012; 1.80</p> <p>2-4; Packer; 5 1/2; 4,950; 4,012-4,019; 6.93</p> <p>2-5; Tubing Pup Joint; 2 3/8; 1,991; 4,019-4,023; 4.80</p> <p>2-6; Nipple; 2 3/8; 4,023-4,025; 1.65</p> <p>Perforated; 4,072-4,081; 8/22/2007</p> <p>Perforated; 4,571-4,578; 8/22/2007</p> <p>Perforated; 4,599-4,610; 8/22/2007</p> <p>Perforated; 4,702-4,718; 8/22/2007</p> <p>Perforated; 4,946-4,972; 8/22/2007</p> <p>Perforated; 5,118-5,131; 8/20/2007</p> <p>Perforated; 5,939-5,949; 6/29/2007</p> <p>2; Production; 5 1/2 in; 4,950 in; 12-6,009 ftKB; 5,997.08 ft</p>
312.0					
313.0					
3,000.0					
4,008.9					
4,009.8					
4,011.8					
4,018.7					
4,023.3					
4,024.9					
4,071.9					
4,081.0					
4,570.9					
4,578.1					
4,599.1					
4,609.9					
4,702.1					
4,717.8					
4,945.9					
4,972.1					
5,118.1					
5,130.9					
5,939.0					
5,949.1					
5,991.8					
5,992.5					
6,008.5					
6,009.2					

NEWFIELD

## Schematic

Well Name: Castle PK 33-16-9-16

43-013-30640

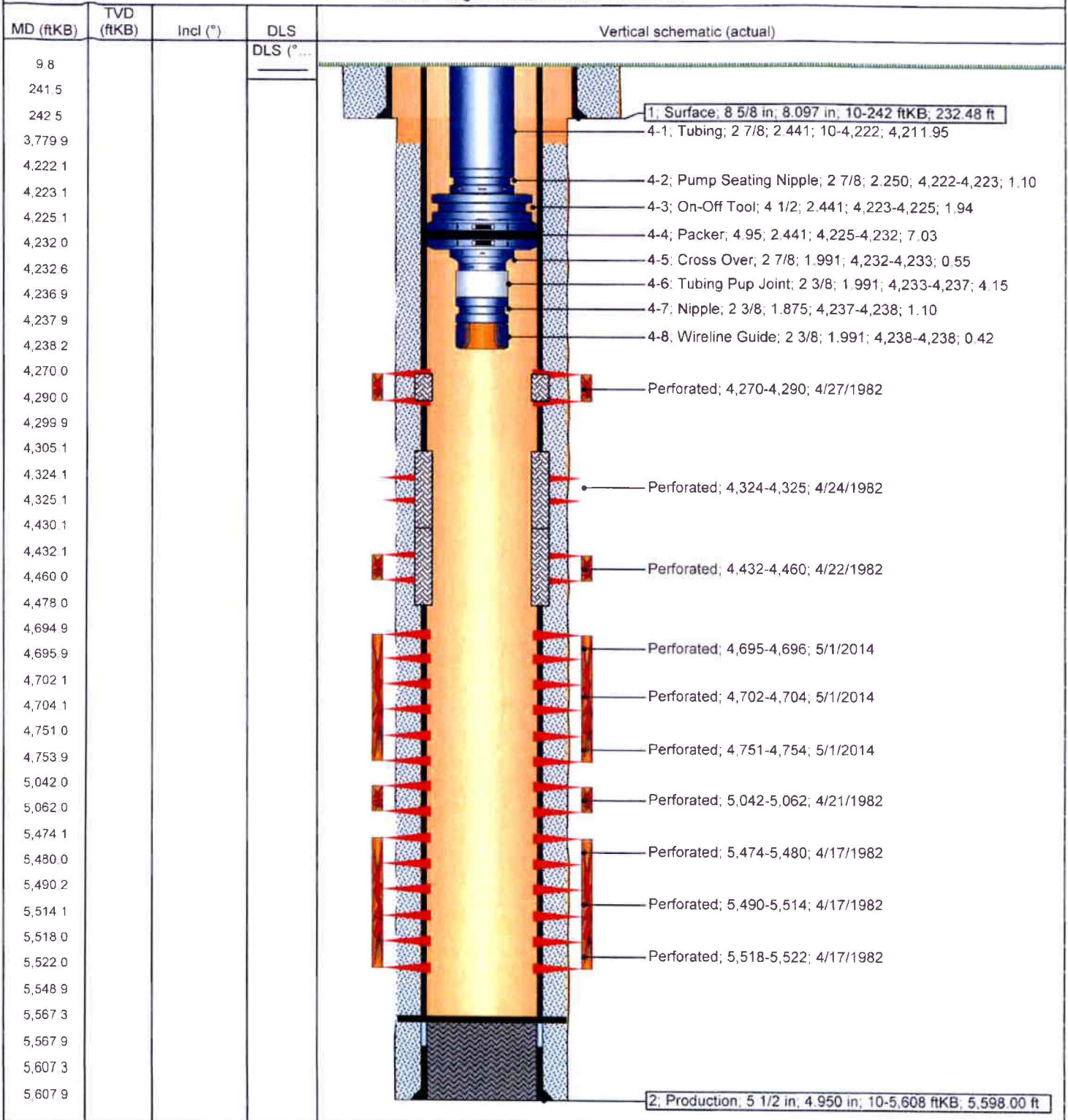
Surface Legal Location 16-9S-16E	AP/WVI 43013306400000	Well RC 500198639	Lease	State/Province Utah	Field Name GMBU CTB5	County DUCHESNE
Spud Date 2/22/1982	Rig Release Date 3/25/1982	On Production Date 5/27/1982	Original KB Elevation (ft) 5,892	Ground Elevation (ft) 5,882	Total Depth All (TVD) (ftKB) 5,608.0	PBTD (All) (ftKB) Original Hole - 5,567.1

## Most Recent Job

Job Category Production / Workover	Primary Job Type Conversion	Secondary Job Type OAP	Job Start Date 4/29/2014	Job End Date 5/6/2014
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TD: 5,608.0

Vertical - Original Hole, 5/14/2014 7:42:44 AM





## Castle Peak State 43-16-9-16

Spud Date: 10/20/81  
 Put on Production: 5/06/82  
 GL: 5882' KB: 5892'

Initial Production: 90 BOPD,  
 TSTM MCFD, 10 BWPD

Injection Wellbore  
DiagramSURFACE CASING

CSG SIZE: 9-5/8"  
 GRADE: J-55  
 WEIGHT: 36#  
 LENGTH: 235'  
 DEPTH LANDED: 245' KB  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 200 sxs cement.

PRODUCTION CASING

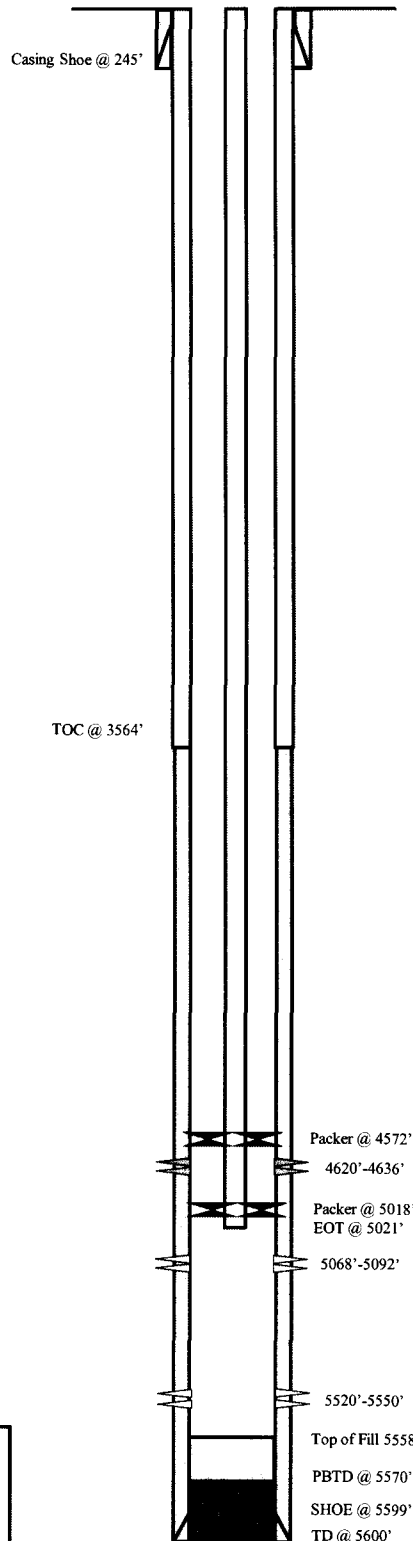
CSG SIZE: 5-1/2"  
 GRADE: K-55  
 WEIGHT: 15.5#  
 LENGTH: 5590'  
 DEPTH LANDED: 5598.78' KB  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 450 sxs cement.  
 CEMENT TOP AT: 3564'

TUBING

SIZE/GRADE/WT.: 2-3/8" / J-55 / 4.7#  
 NO. OF JOINTS: 1 jt (31.4')  
 TUBING PUP: 2-3/8" / N-80 / 4.7# 1 jt (8.0')  
 ON/OFF TOOL: 1 jt 4-1/2" (1.4')  
 ARROW PKR: CE @ 4572.43'  
 TUBING: 2-3/8" / N-80 / 4.7# 14 jt (438.0')  
 X/N NIPPLE: 2-3/8" / J-55 / 4.7# (1.2)  
 2-7/8 x 2-3/8 XO: (0.5)  
 SEAL NIPPLE: 3.875 / J-55 / 6.5# (0.3)  
 ARROW PKR: @ 5018'  
 EOT @ 5021.34'

FRAC JOB

5520'-5550'	Frac w/ 60,000# sand.
5068'-5092'	Frac w/ 48,000# sand.
4620'-4636'	Frac w/ 48,000# sand.
6/26/92	<b>Hole in tubing.</b> Update rod and tubing details.
5/27/04	<b>Tubing leak.</b> Update rod and tubing details.
9/22/04	<b>Tubing leak.</b> Update rod and tubing details.
7-26-05	<b>Pump Change:</b> Update tubing and rod details
8/24/07	<b>Parted rods.</b> Updated rod & tubing details.
03/11/08	<b>Tbg Leak</b> Updated rod and tubing detail
10-29-08	<b>Pump Change.</b> Updated rod & tubing details.
6/8/09	<b>Tubing Leak.</b> Updated r & t details.
05/25/11	<b>Temporary Abandonment</b>
06/13/11	<b>MIT for TA</b>
05/17/12	<b>Convert to Injection Well</b>
05/22/12	<b>Conversion MIT Finalized</b> – update tbg detail

PERFORATION RECORD

4620'-4636'	2 SPF	34 holes
5068'-5092'	2 SPF	50 holes
5520'-5550'	2 SPF	60 holes



Castle Peak State 43-16-9-16  
 1820' FSL & 820' FEL  
 NE/SE Section 16-T9S-R16E  
 Duchesne County, Utah  
 API #43-013-30594; Lease #ML-16532

## Balcron Federal #41-21y

Wellbore Diagram

Elev.GR - 5953.5' GL  
Elev.KB - 5966' (13' KB)

**SURFACE CASING**

CSG SIZE: 8-5/8"  
GRADE: J-55  
WEIGHT: 24#  
LENGTH: 250'  
DEPTH LANDED: 258' KB  
HOLE SIZE: 12-1/4"  
CEMENT DATA: 15 sks class "G"

**PRODUCTION CASING**

CSG SIZE: 5-1/2"  
GRADE: J-55  
WEIGHT: 15.5#  
LENGTH: 6004.02'  
DEPTH LANDED: 5999' KB  
HOLE SIZE: 7-7/8"  
CEMENT DATA: 165 sks thrifty lite. Tailed  
w/ 275 sks 50-50 POZ.

CEMENT TOP AT: 2980' KB

**TUBING**

SIZE/GRADE/WT.: 2-7/8' 8rd EUE / J-55 / 6.5#  
NO. OF JOINTS: 144 Jts  
TUBING ANCHOR: 2-7/8"x5-1/2"  
NO. OF JOINTS: 21 Jts  
SEATING NIPPLE: 2-7/8"x1.10'  
PERFORATED SUB: 2-7/8"x3.20'  
MUD ANCHOR: 2-7/8"x31.82'  
STRING LENGTH:  
SN LANDED AT:

**SUCKER RODS**

POLISHED ROD: 1-1/4"x22' SM  
SUCKER RODS:  
2-3/4"x4' Pony  
1-3/4"x8' Pony  
195-3/4"x25' Plain  
6-1"x25' EL w/2.5 guides  
TOTAL STRING LENGTH: 5061'

PUMP NUMBER: Trico #1193  
PUMP SIZE: 2-1/2"x1-1/2"x16' RWAC

STROKE LENGTH: 58 inches  
PUMP SPEED, SPM: 6.5 SPM  
PUMPING UNIT SIZE:  
PUMPING UNIT:  
PRIME MOVER:

**ACID JOB /BREAKDOWN**

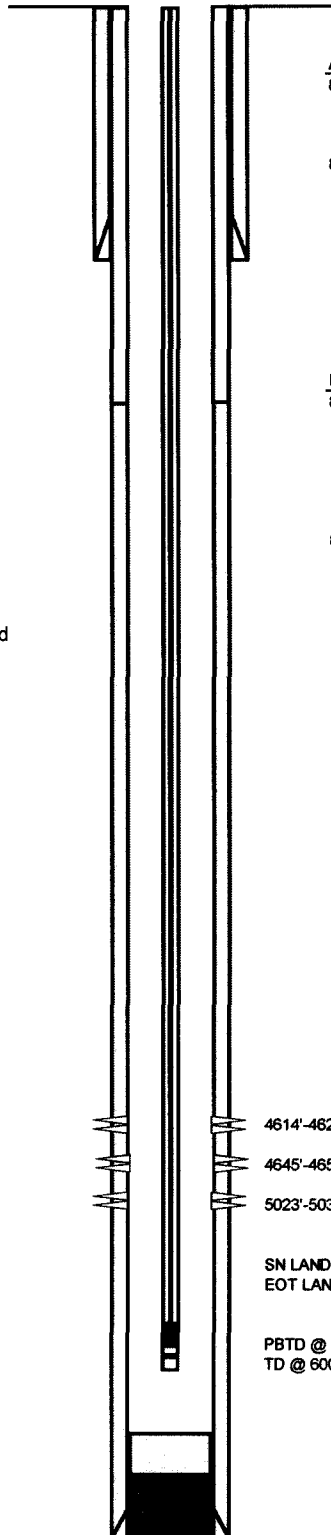
8/24/93	5023'-5036'	Halliburton: ATP=2500 psi, ATR=2.5 bpm, ISIP=1950 psi.
8/28/96	4645'-4650' 4614'-4624'	Halliburton: ATR=6.5 bpm, ATP=2650 psi.

**FRAC JOB**

8/25/93	5023'-5036'	No vols or quantities in report. Max. Rate=36 bpm, max. Press.=3200 psi, ATP=2470 psi, ISIP=2084 psi, 5 min=1770 psi, 10 min= 1723 psi, 15 min=1672 psi.
8/28/96	4645'-4650' 4614'-4624'	Halliburton: No vols or quantities in report. Max. Rate=35 bpm, ISIP=1972 psi, 5 min= 1791 psi, 10 min=1679 psi, 15 min=1607 psi.

**PERFORATION RECORD**

8/23/93	Cutter	5023'-5036'	2 SPF
8/27/93	Schlumberger	4645'-4650' 4614'-4624'	1 SPF 1 SPF



SN LANDED @5061' KB  
EOT LANDED @ 5098' KB

PBTD @ 5950' KB  
TD @ 6000' ' KB

**NEWFIELD****Balcron Federal #41-21y**

Monument Butte

Lease #U-64379

NE NE Section 21, T9S, R16E

970.2' FNL, 893.8 FEL

Duchesne County, Utah

API # 43-013-31392

## Monument Federal 31-21-9-16Y

Put on Production: 3-1-97

Injection Wellbore  
DiagramSURFACE CASING

Surface Casing 0' 260' 8 5/8" 24 J55 Casing Shoe @ 260'

150 sacks class "G" with 2% CaCl and 1/4 lb/sack Floccle.  
(Cement will be circulated to surface.)

PRODUCTION CASING

Production Casing 0' 5650' 5 1/2" 15.50 X55

205 sacks 28.72 Poz. (28% POZ: 72% Class "C")  
with 10% Gel, 6.0 lbs/sk KOL SEAL & 1/4 pps  
Cello Flake. (Wt.=11.09 ppg, Yd=3.30 Cu.Ft/Sk  
Comp. Strght @ 72 Hrs=575) Tailed with 400  
sacks 50:50 POZ(50% POZ: 50% Class "G") with 2%  
Gel, 0.3% FL-52, 1/4 pps Cello Flakes & 2.0 pps  
KOL SEAL. (Wt.=14.30 ppg, Yd=1.25 Ft.Cu./Sk,  
Comp Strght @ 75 Hrs=2700)  
(Actual cement volumes to be calculated from  
caliper log with cement top at 2000')

TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#

NO. OF JOINTS: 147 jts (4552.8')

SEATING NIPPLE: 2-7/8" (1.10')

SN LANDED AT: 4562.8' KB

ON/OFF TOOL AT: 4563.9'

SEAL NIPPLE LANDED AT: 4565.4' KB

ARROW #1 PACKER CE AT: 4569.8'

XO 2-3/8 x 2-7/8 J-55 AT: 4572.8'

TBG PUP 2-3/8 J-55 AT: 4573.2'

X/N NIPPLE AT: 4577.3'

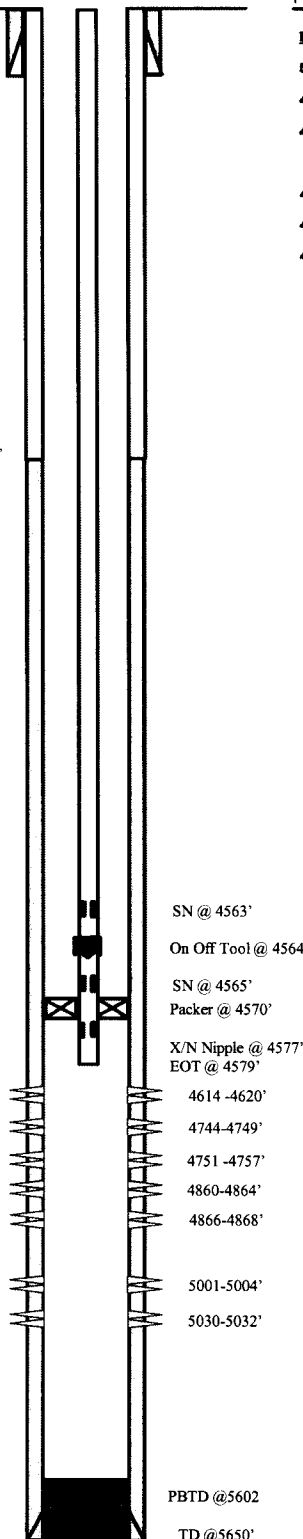
TOTAL STRING LENGTH: EOT @ 4579'

FRAC JOB

Depth Interval	Amount and Kind of Material Used
5001' - 5032'	Break down with 2,436 gallons 2% KCL water.
4860' - 4868'	Break down with 2,772 gallons 2% KCL water.
4860' - 5032'	Fracture with 17,440# 20/40 mesh sand and 39,550# 16/30 mesh sand with 18,186 gallons 2% KCL gelled water.
4744' - 4757'	Break down with 2,436 gallons 2% KCL water.
4614' - 4620'	Break down with 1,848 gallons 2% KCL water.
4614' - 4757'	Fracture with 30,400# 16/30 mesh sand with 11,130 gallons 2% KCL gelled water.
11/28/12	Convert to Injection Well
11/29/12	Conversion MIT Finalized - update tbg detail

PERFORATION RECORD

5001-5004'	4 JSPF
5030-5032'	4 JSPF
4866-4868'	4 JSPF
4860-4864'	4 JSPF
4751-4757'	4 JSPF
4744-4749'	4 JSPF
4614-4620'	4 JSPF

**NEWFIELD**

Monument Federal 31-21Y-9-16  
537' FNL and 2146' FEL  
NW/NE Sec. 21, T9S, 16E  
Duchesne Co, Utah  
API #43-013-31726 # UTU-64379

## NEWFIELD

## Schematic

Well Name: Mon 11-22-9-16

43-013-31647

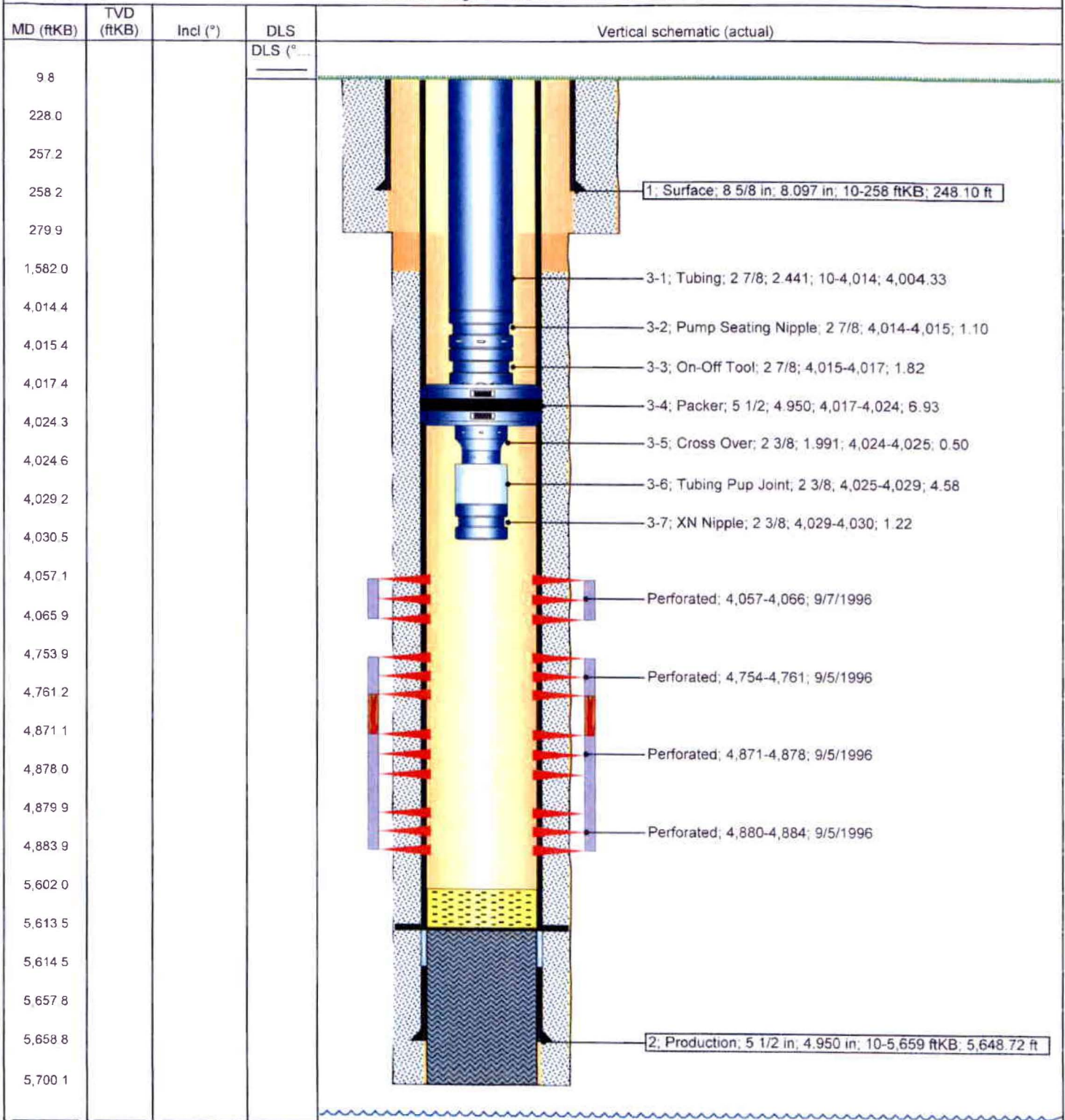
Surface Legal Location 22-9S-16E		API/WJW 43013316470000	Well RC 500151005	Lease	State/Province Utah	Field Name GMBU CTB6	County DUCHESNE
Spud Date 8/19/1996	Rig Release Date 8/27/1996	On Production Date 9/26/1996	Original KB Elevation (ft) 5,927	Ground Elevation (ft) 5,917	Total Depth All (TVD) (ftKB)	PBTD (All) (ftKB) Original Hole - 5,613.5	

## Most Recent Job

Job Category Production / Workover	Primary Job Type Conversion	Secondary Job Type Basic	Job Start Date 6/12/2014	Job End Date 6/17/2014
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TD: 5,700.0

Vertical - Original Hole, 6/24/2014 8:22:18 AM





Well Name: GMBU W-16-9-16

43-013-51579

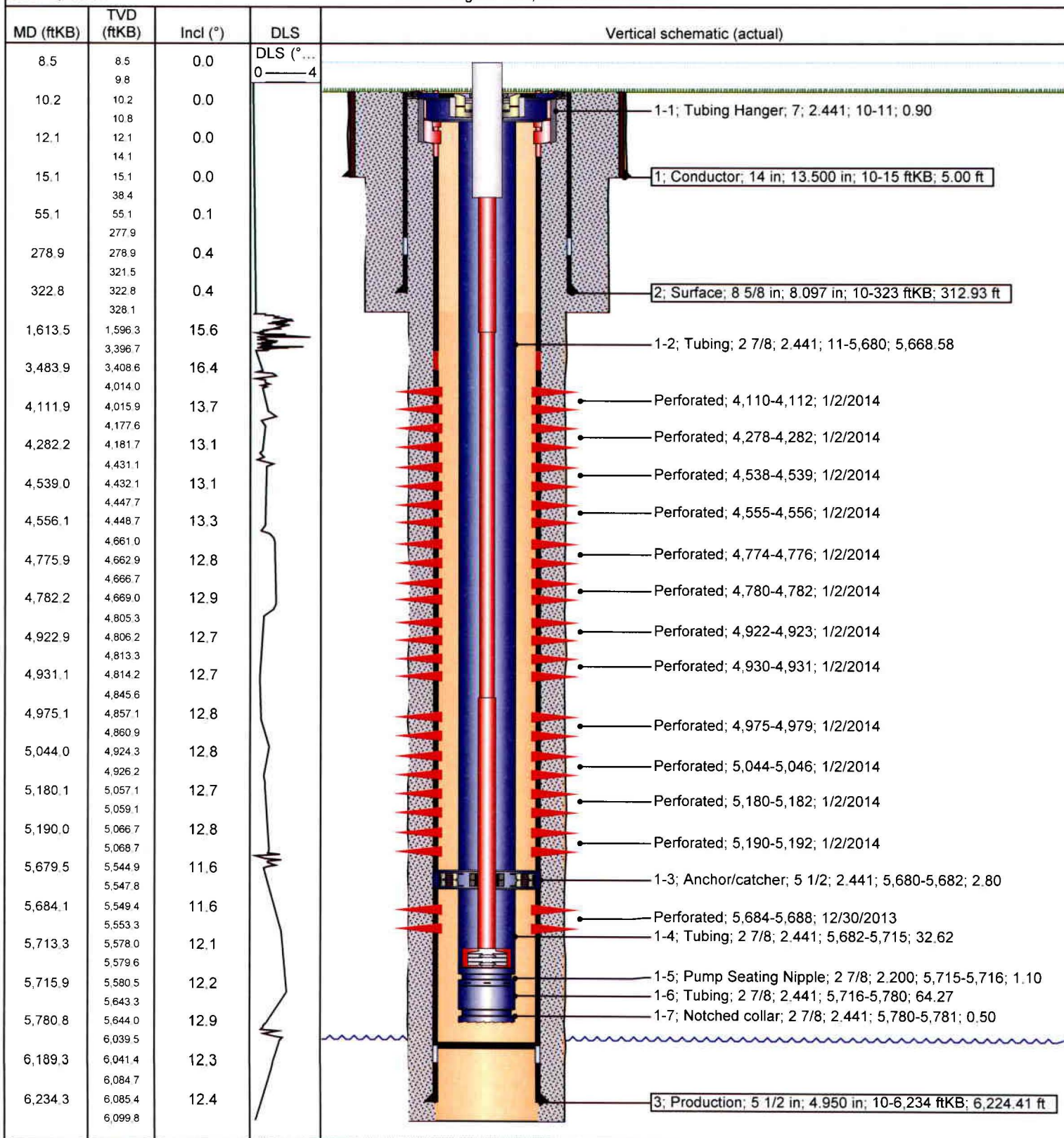
Surface Legal Location NENW 726 FNL 1924 FWL Sec 21 R16E Mer SLB			API/UWI 43013515790000	Well RC 500353413	Lease UTU64379	State/Province Utah	Field Name GMBU CTB5	County Duchesne
Spud Date 11/26/2013	Rig Release Date 12/10/2013	On Production Date 1/15/2014	Original KB Elevation (ft) 5,990	Ground Elevation (ft) 5,980	Total Depth All (TVD) (ftKB) Original Hole - 6,099.8		PBTD (All) (ftKB) Original Hole - 6,187.5	

## Most Recent Job

Job Category Initial Completion	Primary Job Type Fracture Treatment	Secondary Job Type P&P	Job Start Date 12/30/2013	Job End Date 1/10/2014
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TD: 6,249.0

Slant - Original Hole, 4/2/2014 3:25:56 PM



## NEWFIELD

## Schematic

Well Name: GMBU I-21-9-16

43-013-52341

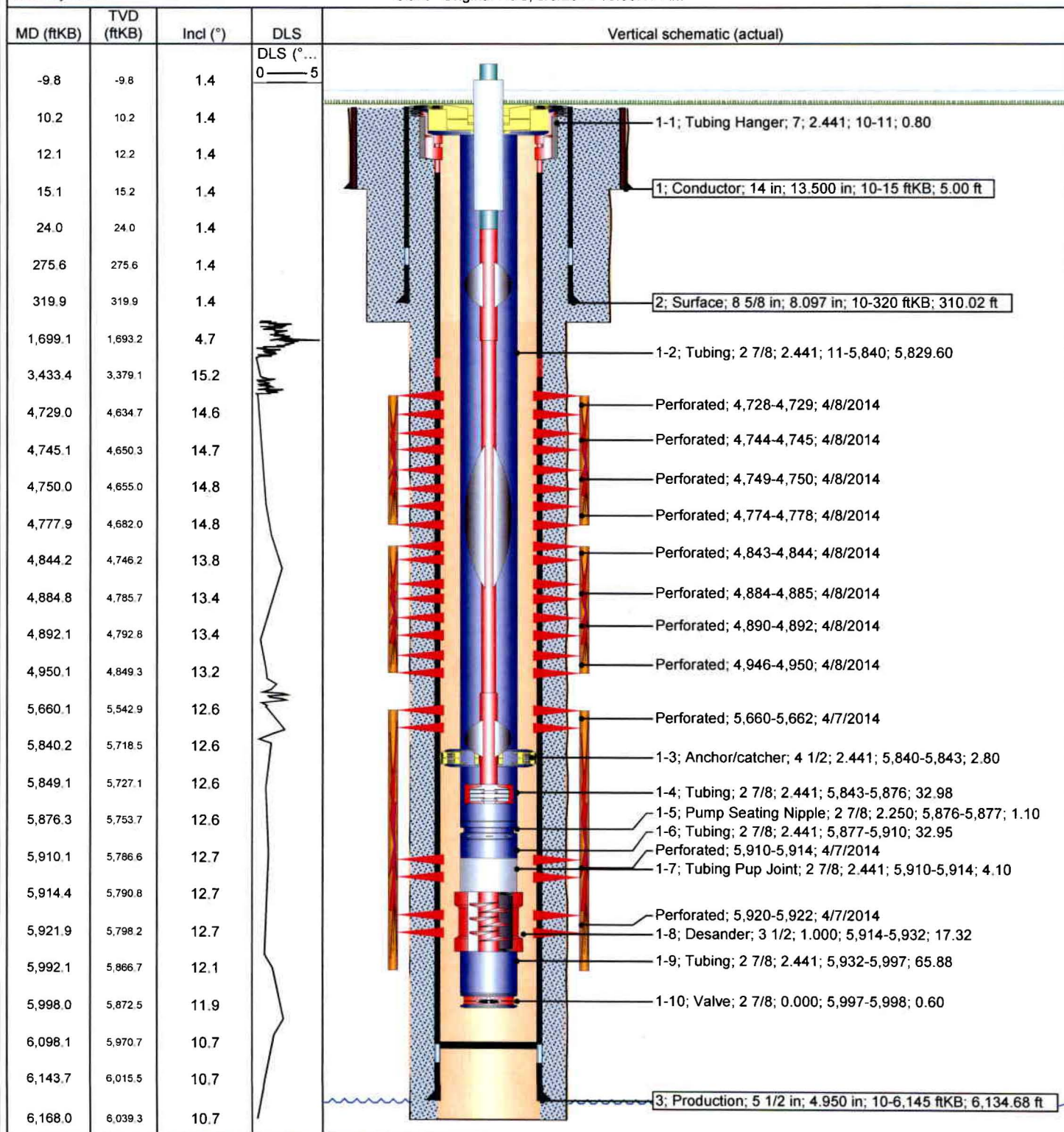
Surface Legal Location		API/UWI		Well RC	Lease	State/Province	Field Name	County
SWNE 2144 FNL 1963 FEL Sec 21 T9S R16E		43013523410000		500346532	UTU64379	Utah	GMBU CTB6	Duchesne
Spud Date	Rig Release Date	On Production Date	Original KB Elevation (ft)	Ground Elevation (ft)	Total Depth All (TVD) (ftKB)	PBDT (All) (ftKB)		Original Hole - 6,098.2
3/21/2014	3/25/2014	4/11/2014	6,020	6,010	Original Hole - 6,039.4			

## Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Initial Completion	Fracture Treatment	P&P	4/7/2014	4/11/2014

TD: 6,168.0

Slant - Original Hole, 5/5/2014 10:36:17 AM





1 of 5

Units of Measurement: **Standard**

## Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**Sales Rep: **Pete Prodromides**Well Name: **FEDERAL 16-16-9-16**Lab Tech: **John Keel**

Sample Point:

Sample Date: **1/24/2014**Scaling potential predicted using ScaleSoftPitzer from  
Brine Chemistry Consortium (Rice University)Sample ID: **WA-264554**

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	1/24/2014	Cations	mg/L	Anions	mg/L
System Temperature 1 (°F):	120	Sodium (Na):	11349.00	Chloride (Cl):	23000.00
System Pressure 1 (psig):	60	Potassium (K):	122.00	Sulfate (SO4):	91.00
System Temperature 2 (°F):	210	Magnesium (Mg):	30.00	Bicarbonate (HCO3):	2318.00
System Pressure 2 (psig):	60	Calcium (Ca):	23.10	Carbonate (CO3):	
Calculated Density (g/ml):	1.021	Strontium (Sr):	12.00	Acetic Acid (CH3COO)	
pH:	8.50	Barium (Ba):	4.50	Propionic Acid (C2H5COO)	
Calculated TDS (mg/L):	36954.37	Iron (Fe):	4.50	Butanoic Acid (C3H7COO)	
CO2 in Gas (%):		Zinc (Zn):	0.11	Isobutyric Acid ((CH3)2CHCOO)	
Dissolved CO2 (mg/L):	0.00	Lead (Pb):	0.00	Fluoride (F):	
H2S in Gas (%):		Ammonia NH3:		Bromine (Br):	
H2S in Water (mg/L):	5.00	Manganese (Mn):	0.16	Silica (SiO2):	

## Notes:

Al=.05

B=15

Li=3.4

(PTB = Pounds per Thousand Barrels)

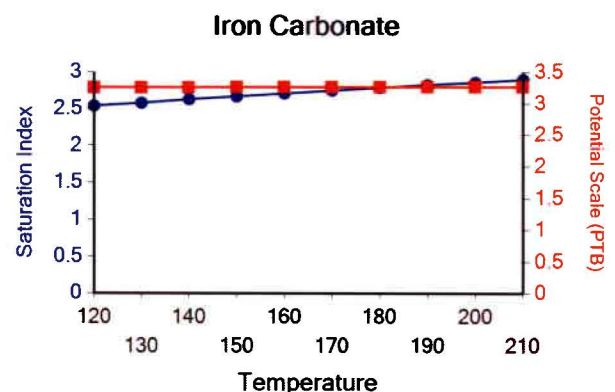
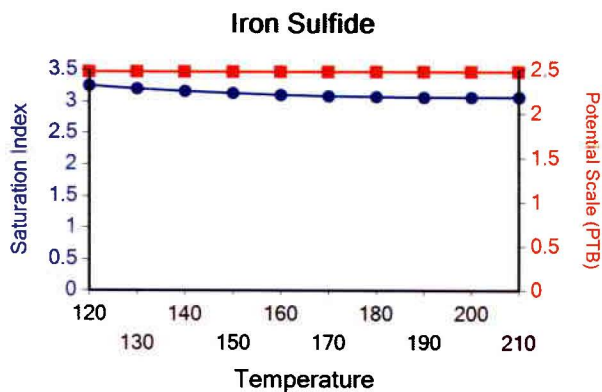
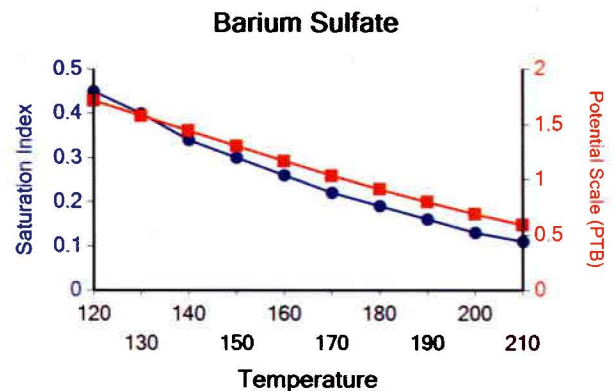
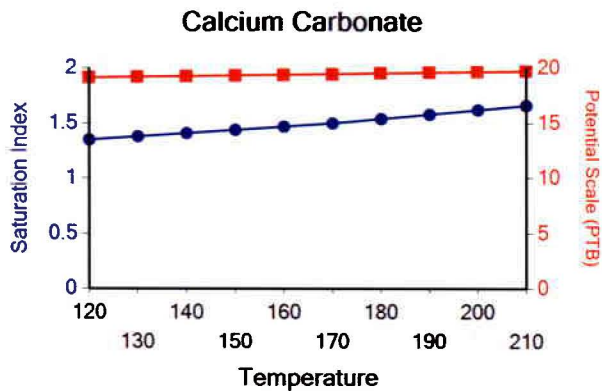
		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
210.00	60.00	1.66	19.69	0.11	0.59	3.06	2.48	2.90	3.27	0.00	0.00	0.00	0.00	0.00	0.00	8.04	0.06
200.00	60.00	1.62	19.64	0.13	0.69	3.06	2.48	2.86	3.27	0.00	0.00	0.00	0.00	0.00	0.00	8.13	0.06
190.00	60.00	1.58	19.58	0.16	0.80	3.06	2.48	2.83	3.27	0.00	0.00	0.00	0.00	0.00	0.00	8.24	0.06
180.00	60.00	1.54	19.52	0.19	0.91	3.07	2.48	2.79	3.27	0.00	0.00	0.00	0.00	0.00	0.00	8.34	0.06
170.00	60.00	1.50	19.46	0.22	1.04	3.08	2.48	2.75	3.27	0.00	0.00	0.00	0.00	0.00	0.00	8.46	0.06
160.00	60.00	1.47	19.39	0.26	1.17	3.10	2.48	2.71	3.27	0.00	0.00	0.00	0.00	0.00	0.00	8.58	0.06
150.00	60.00	1.44	19.33	0.30	1.31	3.13	2.48	2.67	3.27	0.00	0.00	0.00	0.00	0.00	0.00	8.71	0.06
140.00	60.00	1.41	19.26	0.34	1.44	3.16	2.48	2.63	3.26	0.00	0.00	0.00	0.00	0.00	0.00	8.85	0.06
130.00	60.00	1.38	19.19	0.40	1.58	3.20	2.48	2.58	3.26	0.00	0.00	0.00	0.00	0.00	0.00	9.00	0.06
120.00	60.00	1.35	19.13	0.45	1.72	3.25	2.48	2.54	3.26	0.00	0.00	0.00	0.00	0.00	0.00	9.15	0.06

Water Analysis Report

Temp (°F)	PSI	Hemihydrate CaSO <sub>4</sub> ·0.5H <sub>2</sub> O		Anhydrate CaSO <sub>4</sub>		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
210.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
190.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate

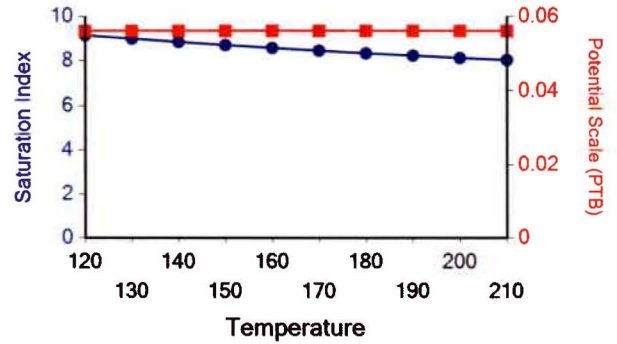
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate



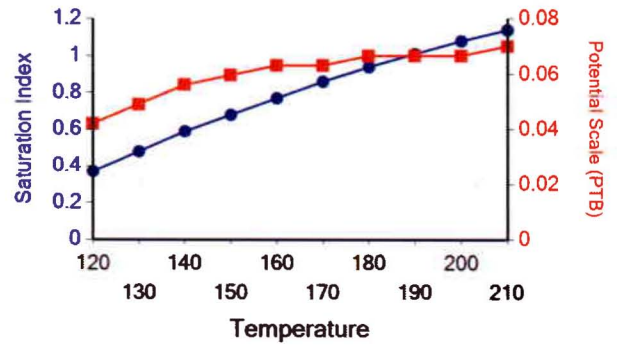


Water Analysis Report

Zinc Sulfide



Zinc Carbonate



465

## Multi-Chem Analytical Laboratory

1553 East Highway 40

Vernal, UT 84078

multi-chem®

A HALLIBURTON SERVICE

Units of Measurement: **Standard**

## Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**  
 Well Name: **WELLS DRAW INJ FACILITY**  
 Sample Point: **Commingled After Filter**  
 Sample Date: **11/18/2013**  
 Sample ID: **WA-259493**

Sales Rep: **Jacob Bird**  
 Lab Tech: **Gary Winegar**

Scaling potential predicted using ScaleSoftPitzer from  
 Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	11/26/2013	Sodium (Na):	141.00	Chloride (Cl):	1000.00
System Temperature 1 (°F):	120	Potassium (K):	39.00	Sulfate (SO4):	41.00
System Pressure 1 (psig):	2000	Magnesium (Mg):	24.00	Bicarbonate (HCO3):	1122.00
System Temperature 2 (°F):	210	Calcium (Ca):	41.00	Carbonate (CO3):	
System Pressure 2 (psig):	2000	Strontium (Sr):	0.70	Acetic Acid (CH3COO)	
Calculated Density (g/ml):	0.999	Barium (Ba):	0.00	Propionic Acid (C2H5COO)	
pH:	6.50	Iron (Fe):	0.11	Butanoic Acid (C3H7COO)	
Calculated TDS (mg/L):	2413.76	Zinc (Zn):	0.03	Isobutyric Acid ((CH3)2CHCOO)	
CO2 in Gas (%):		Lead (Pb):	0.00	Fluoride (F):	
Dissolved CO2 (mg/L):	24.00	Ammonia NH3:		Bromine (Br):	
H2S in Gas (%):		Manganese (Mn):	0.00	Silica (SiO2):	4.92
H2S in Water (mg/L):	0.00				

## Notes:

B=4 AI=18 LI=0

(PTB = Pounds per Thousand Barrels)

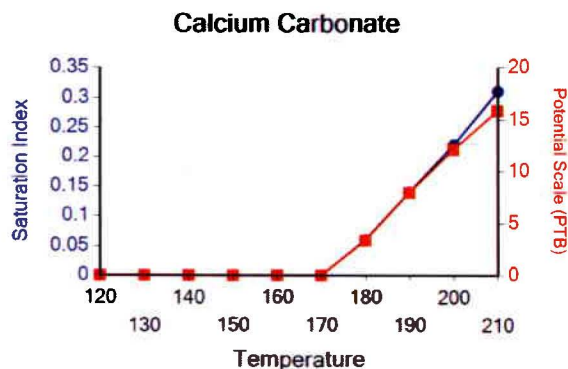
		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
210.00	2000.00	0.31	15.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	2000.00	0.22	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
190.00	2000.00	0.14	7.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	2000.00	0.06	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Water Analysis Report

Temp (°F)	PSI	Hemihydrate CaSO <sub>4</sub> ·0.5H <sub>2</sub> O		Anhydrate CaSO <sub>4</sub>		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
210.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
190.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate

These scales have positive scaling potential under final temperature and pressure:



**Attachment "G"**

**State #16-16-9-16  
Proposed Maximum Injection Pressure**

Frac Interval (feet)		Avg. Depth (feet)	ISIP (psi)	Calculated Frac Gradient (psi/ft)	Pmax
Top	Bottom				
5466	5492	5479	1603	0.73	1567 ←
4956	4966	4961	2460	0.93	2428
4806	4815	4811	1822	0.81	1791
4612	4620	4616	1888	0.84	1858
				<b>Minimum</b>	<u><u>1567</u></u>

**Calculation of Maximum Surface Injection Pressure**

$$P_{max} = (\text{Frac Grad} - (0.433 \times 1.015)) \times \text{Depth of Top Perf}$$

where pressure gradient for the fresh water is .433 psi/ft and  
specific gravity of the injected water is 1.015.

$$\text{Frac Gradient} = (\text{ISIP} + (0.433 \times \text{Top Perf.})) / \text{Top Perf.}$$

**Please note:** These are existing perforations; additional perforations may be added during the actual conversion procedure.

**Daily Activity Report**

Format For Sundry

**STATE 16-16-9-16****4/1/2008 To 8/30/2008****6/12/2008 Day: 1****Completion**

Rigless on 6/11/2008 - Install 5M frac head. NU 6" 5M Cameron BOP. RU H/O truck & pressure test casing, blind rams, frac head & casing valves to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD @ 5630' & cement top @ 140'. Perforate stage #1. CP1 sds @ 5466-92' w/ 3 1/8" slick guns (19 gram, .49" HE, 120°, 21.92" pen, EXP-3319-331 Titan) w/ 4 spf for total of 104 shots. 135 BWTR. SIFN.

**6/17/2008 Day: 2****Completion**

Rigless on 6/16/2008 - RU BJ Services "Ram Head" frac flange. RU BJ & frac CP1 sds, stage #1 down casing w/ 56,437#'s of 20/40 sand in 509 bbls of Lightning 17 frac fluid. Open well w/ 0 psi on casing. Perfs broke down @ 2383 psi (took 5 bbls to load hole). Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 1203 w/ ave rate of 23.5 bpm w/ 8 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. 644 bbls EWTR. ISIP was 1603. Leave pressure on well. RU Lone Wolf WLT, crane & lubricator. RIH w/ Weatherford 5-1/2" (6K) composite flow through frac plug & 10' perf gun. Set plug @ 5060'. Perforate A.5 sds @ 4956-66' w/ 3-1/8" Slick Guns (23 gram, .43" HE, 90°) w/ 4 spf for total of 40 shots. RU BJ & frac stage #2 w/ 47,866#'s of 20/40 sand in 458 bbls of Lightning 17 frac fluid. Open well w/ 445 psi on casing. Perfs broke down @ 780 psi. Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 2113 w/ ave rate of 23.3 bpm w/ 8 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. 1102 bbls EWTR. ISIP was 2460. Leave pressure on well. RU WLT. RIH w/ frac plug & 9' perf gun. Set plug @ 4890'. Perforate B.5 sds @ 4806-15' w/ 4 spf for total of 36 shots. RU BJ & perfs won't break down. RIH & spot 10 gals of 15% HCL acid on perfs. RU BJ & frac stage #3 w/ 19,736#'s of 20/40 sand in 307 bbls of Lightning 17 frac fluid. Open well w/ 1060 psi on casing. Perfs broke down @ 1709 psi. Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 1699 w/ ave rate of 23.2 bpm w/ 6 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. 1409 bbls EWTR. ISIP was 1822. Leave pressure on well. RU WLT. RIH w/ frac plug & 8' perf gun. Set plug @ 4710'. Perforate D1 sds @ 4612-20' w/ 4 spf for total of 32 shots. RU BJ & frac stage #4 w/ 16,608#'s of 20/40 sand in 290 bbls of Lightning 17 frac fluid. Open well w/ 1440 psi on casing. Perfs broke down @ 2600 psi. Pump 30 gals of Techna Hib chemical. Treated @ ave pressure of 1953 w/ ave rate of 23.4 bpm w/ 6 ppg of sand. 1699 bbls EWTR. ISIP was 1888. RD BJ & WLT. Flow well back. Well flowed for 4 hours & died w/ 300 bbls rec'd. SIFN.

**6/19/2008 Day: 3****Completion**

Leed #731 on 6/18/2008 - MIRU Leed #731. No pressure on well. ND Cameron BOP & 5M frac head. Install 3M production tbg head & NU Weatherford Schaeffer BOP. Talley, drift, PU & TIH W/ new Weatherford 4 3/4" "Hurricane" bit, bit sub & new 2 7/8 8rd 6.5# J-55 tbg. Tag fill @ 4615'. Tbg displaced 11 BW on TIH. LD 2 jts & RU power swivel. SIFN W/ est 1388 BWTR.

**6/20/2008 Day: 4****Completion**

Leed #731 on 6/19/2008 - C/O sd & drill out composite bridge plugs as follows



(using conventional circulation): sd @ 4615', plug @ 4710' in 5 minutes; no sd, plug @ 4890'; sd @ 5048', plug @ 5060'. Hang back swivel & con't PU tbg. Tag fill @ 5310'. PU swivel. Drill plug remains & sd to PBTD @ 5684'. Circ hole clean W/ no fluid loss. RD swivel. Pull EOT to 5592'. RU swab equipment. IFL @ sfc. Made 5 swb runs rec 80 BTF W/ light gas, sm tr oil & sm tr sd. FFL @ 1000'. SIFN W/ est 1308 BWTR.

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6/21/2008 Day: 5

Completion

Leed #731 on 6/20/2008 - Bleed sm amt gas f/ tbg. Resume swabbing well for sand cleanup. IFL @ 900'. Made 8 swb runs rec 72 BTF W/ light gas, tr oil & light tr sd. FFL @ 1800'. TIH W/ tbg f/ 5592'. Tag sd @ 5680' (4' new fill). C/O sd to PBTD @ 5684'. Circ hole clean. Lost est 45 BW & rec tr oil. LD excess tbg. TOH W/ tbg--LD bit. TIH W/ BHA & production tbg as follows: 2 7/8 NC, 2 jts tbg, SN, 2 jts tbg, new CDI 5 1/2" TA (45K) & 173 jts 2 7/8 8rd 6.5# J-55 tbg. ND BOP. Set TA @ 5435' W/ SN @ 5500' & EOT @ 5565'. Land tbg W/ 16,000# tension. NU wellhead. RU & flush tbg W/ 60- BW (returned same amt). PU & TIH W/ pump and "A" grade rod string to 2025'. PU polished rod & SIFN. Est 1281 BWTR.

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6/24/2008 Day: 6

Completion

Leed #731 on 6/23/2008 - Con't PU & TIH W/ pump and rod sdtring f/ 2025' (complete as follows): New CDI 2 1/2" X 1 1/2" X 14' RHAC pump, 6-1 1/2" weight rods, 20-3/4" scraped rods, 94-3/4" plain rods, 99-3/4" scraped rods, 1-6' & 1-2' X 3/4" pony rods and 1 1/2" X 26' polished rod. Seat pump & RU pumping unit. Fill tbg W/ 2 BW. Pressure test tbg to 200 psi. Stroke pump up W/ unit to 800 psi. Good pump action. RDMOSU. Est 1283 BWTR. Place well on production @ 2:00 PM 6/23/2008 W/ 72" SL @ 4 SPM. FINAL REPORT!!!

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Pertinent Files: Go to File List

## **ATTACHMENT H**

### **WORK PROCEDURE FOR PLUGGING AND ABANDONMENT**

1. Set CIBP @ 4562'
2. Plug #1 Set 100' plug on top of CIBP using 12 sx Class "G" cement
3. Plug #2 162' balance plug using 19 sx Class "G" cement 50' above Trona-Bird's Nest extending 50' below base of Mahogany Oil Shale
4. Plug #3 120' balance plug using 14 sx Class "G" cement 60' above Uinta/Green River and extending 60' below
5. Plug #4 Pump 43 sx Class "G" cement down 5 ½" casing to 366'

The approximate cost to plug and abandon this well is \$42,000.

## State 16-16-9-16

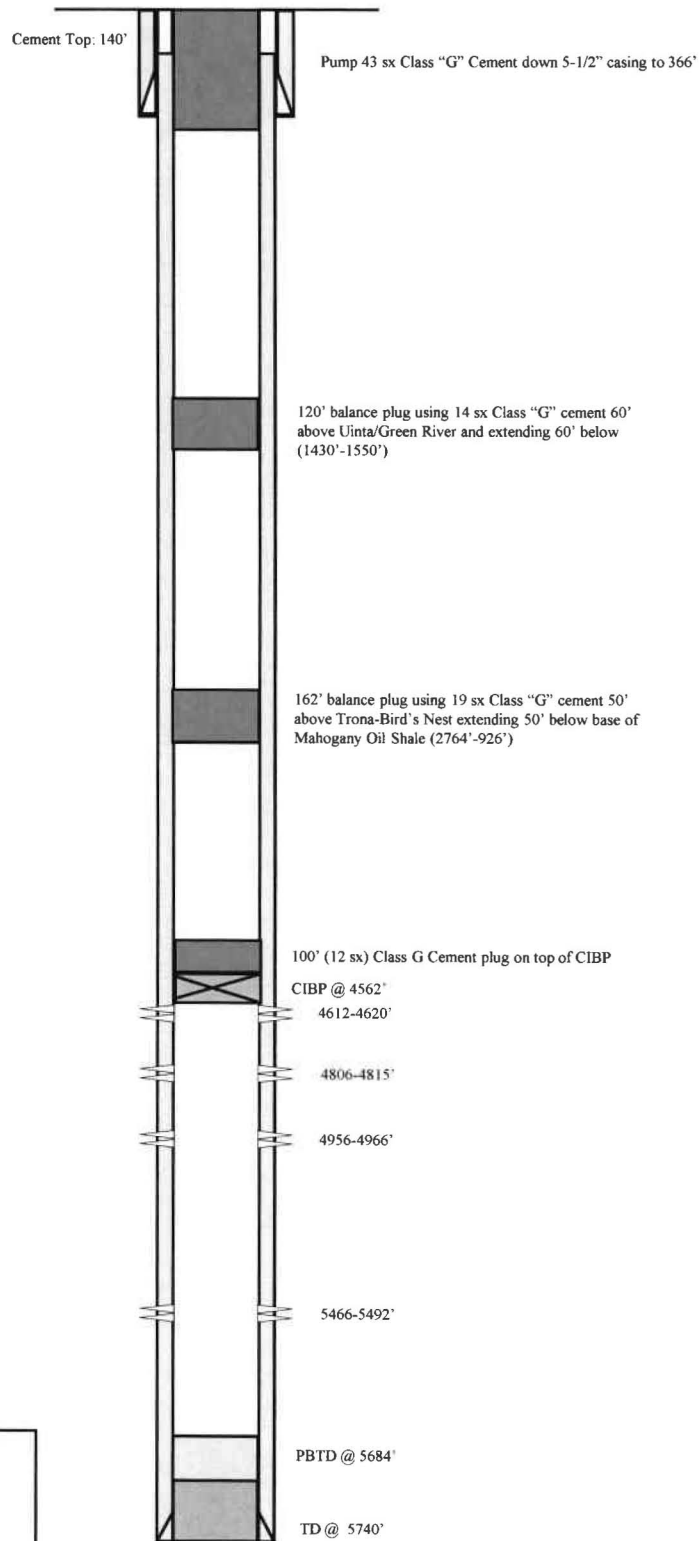
Spud Date: 05-03-08  
 Put on Production: 05-12-08  
 GL: 5879' KB: 5891'

SURFACE CASING

CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7jts (305.64')  
 DEPTH LANDED: 316'  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: To Surface with 160 sx Class 'G' cmt

PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 139jts  
 HOLE SIZE: 7-7/8"  
 DEPTH LANDED: 5732'  
 CEMENT DATA: 275 sx Prem-lite II and 400 sx 50/50 Poz  
 CEMENT TOP AT: 140'

Proposed P & A  
Wellbore Diagram**NEWFIELD****State 16-16-9-16**

658' FSL &amp; 664' FEL

SE/SE Section 16-T9S-R16E

Duchesne Co, Utah

API #43-013-33854; Lease # Utah State ML-16532